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Garden Annual

All New For 1963

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GEO. KELLER & SONS CO.

**909 Maine St.
Quincy, Ill.**



It's no wonder our customers have "Green Thumbs". Green Thumbs are supposed to mark the lucky grower, but you don't have to depend on luck with all the services you get here at our store.

We chose our business because we like gardens and gardeners. Here in our store you'll find the right seed for flowers and vegetables which do best here in our own soil and climate. We have the right fertilizers—weed killers—tools—in fact we're here just to make your gardening easy and fruitful.

We've always made it our job to serve the gardeners in our area and we work with our neighbors in mind.

Our Garden Annual is designed for you. To help you plan your garden. It tells you what to do—when—what's new. There are garden designs carefully arranged to give you a summer-time of beauty.

In the pages of this, our catalog, you'll find out what insecticide to use where—what particular bug you are fighting—how to plant by the moon—wise watering—in fact, everything you need to know about gardening—for the beginner as well as the expert.

Have fun in your garden this year, for there is unexpected delight in store for the gardener who, for the first time, watches a plant develop from a seed which he has sown. In its maturity, that plant is a tribute to his skill and patience.

One of gardening's extra bonuses is exercise—and watching that waistline go down!

After you've planned your garden this year and the family decides who wants what—come down to see us, for your next stop is your friendly garden store where we're waiting to serve you. We hope to see you soon—and often!

Why Shop Here?





How to Plant Shrubs

WHEN planting shrubs, make the holes deep and wide enough so that the roots can spread out in their natural positions without being cramped or twisted. Make the planting holes deeper than the ball of roots in order to allow space to throw in some loose soil. This will help the roots take hold. This is true, too, of the width of the hole. This should be wider than the ball of roots to allow ample space for packing freshly worked soil around the ball.

Cut off all bruised or broken parts of the roots, using pruning shears or a sharp knife to make a clean cut.

Deciduous shrubs are planted to the same depth they stood before—deep planting all too often results in failure. However, this is not the case with evergreens, which will do better if they are set from half an inch to an inch deeper than they stood before.

Work the soil firmly around and between the roots; then pack the earth by tramping or using a tamper. Loose soil may cause the roots to dry out before they take hold in the soil. Be careful that no manure or fertilizer touches the roots. When the hole is half filled with soil, water generously; and after the water has been absorbed, finish filling the hole. A saucer of soil around the shrub will be helpful in retaining an adequate amount of water. This saucer should be kept through the first season.

In planting evergreens that require acid soil, growth can be stimulated by putting some peat moss around the roots before filling in with soil. The amount to use will vary from a trowelful to one or more spadefuls depending upon the size of the bush.

Transplanting is a shock to plants, because their food supply is withheld until the roots take hold of the soil and commence to grow. For this reason the most satisfactory time to move deciduous material is in the fall after the leaves have fallen and the

flow of sap is practically at a standstill. If the planting is done in the spring, try to get the shrubs in the soil before the leaf bud enfolds.

When the planting is completed, cut the ends of the shoots back and keep the plants well watered for at least two weeks, or until the shrub is established and the new growth commences.

Watering is especially important in the spring when the warmth of the sun dries out the soil fast. Over-watering of deciduous shrubs in the fall will tend to rot the roots. At that season the soil is damp and cold and after the leaves have fallen, the shrubs are unable to throw off excess moisture. In this respect evergreens differ from deciduous shrubs in that they require copious watering before the ground closes. Their leaves remain green all winter long and are constantly giving off moisture; unless they are given an ample store of water before winter sets in, they will dry out and be winter-killed.

There is no rigid rule for the planting distances between shrubs. The determining factors are the kind of bush, soil and climatic conditions, and whether or not an immediate effect is desired. Generally speaking, the larger shrubs are spaced from five to six feet apart, and the smaller growers can be placed two to three feet apart for mass effect. If the soil is rich and deep and the shrubs are growing satisfactorily, little or no fertilizer will be required. When the soil conditions are poor, as is often the case close to the house, one or two applications of fertilizer will be decidedly advantageous. These can be given in the spring two or three months apart, the first one applied in March.

Spring flowering shrubs should only be pruned immediately after they have finished blooming, as they form their buds at that time for next season's bloom, therefore, if they are pruned too late, a large proportion of the flowering for the following season will be lost.

Fertilizer . . . what it does for your lawn

The people who make lawn fertilizer are great ones for putting numbers all over the side of the bags. You'll see such combinations as 10-6-4, 5-10-5, and so on.

What do the numbers mean? Well, they refer to the analysis of the bag in terms of Nitrogen, Phosphorus, and Potash (and in just that order).

Oddly enough, you can't put just any fertilizer on a lawn and expect pretty, green

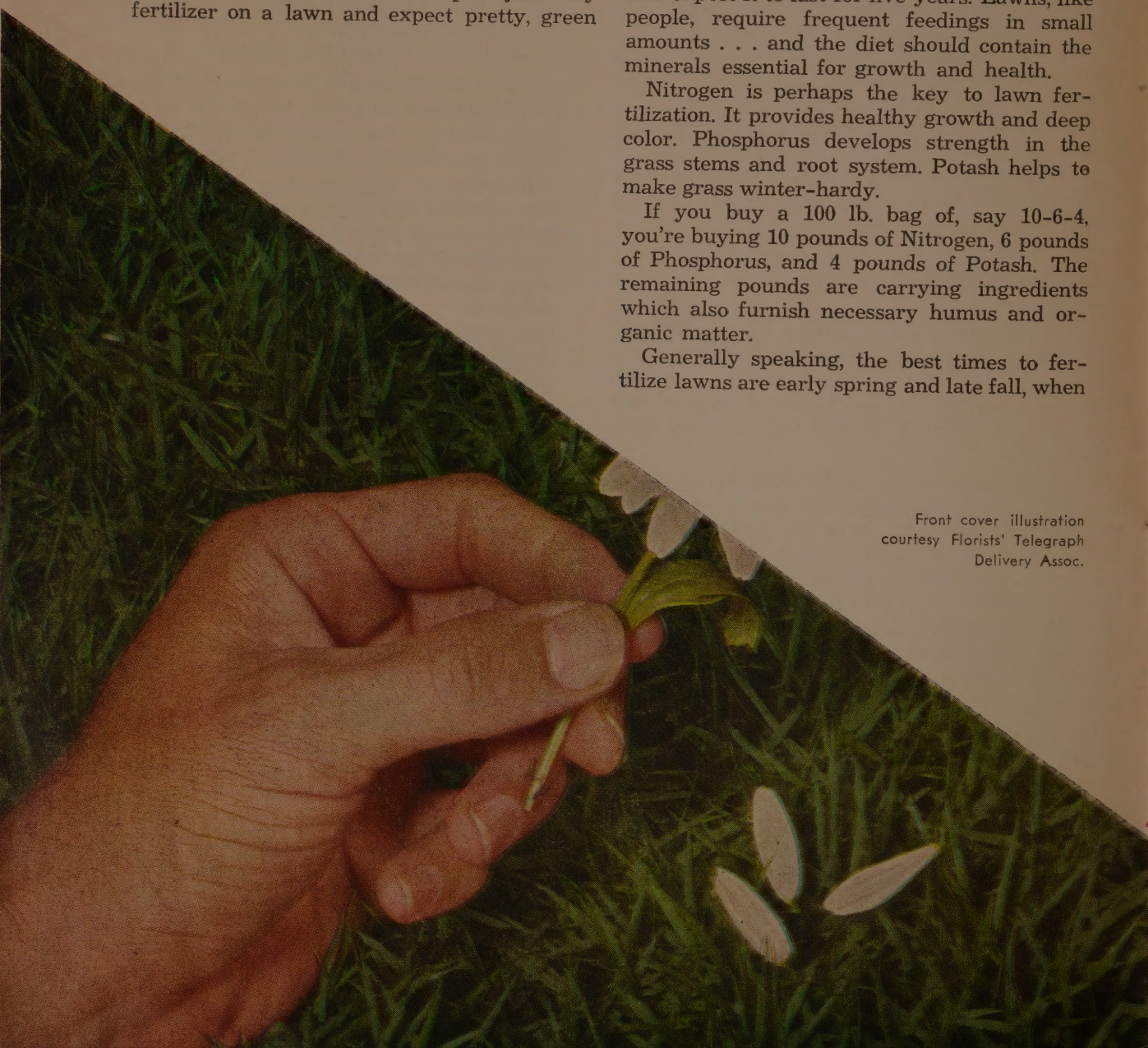
grass. Best results come from a combination of the above three basic ingredients, in amounts calibrated to feed the grass only what it needs. If you fly off on a tangent and concoct some extra powerful potion of your own, you're apt to burn your lawn into a hopeless patch of brown straw. Neither can you dump a ton of fertilizer on your lawn at one time and expect it to last for five years. Lawns, like people, require frequent feedings in small amounts . . . and the diet should contain the minerals essential for growth and health.

Nitrogen is perhaps the key to lawn fertilization. It provides healthy growth and deep color. Phosphorus develops strength in the grass stems and root system. Potash helps to make grass winter-hardy.

If you buy a 100 lb. bag of, say 10-6-4, you're buying 10 pounds of Nitrogen, 6 pounds of Phosphorus, and 4 pounds of Potash. The remaining pounds are carrying ingredients which also furnish necessary humus and organic matter.

Generally speaking, the best times to fertilize lawns are early spring and late fall, when

Front cover illustration
courtesy Florists' Telegraph
Delivery Assoc.





the temperature is moderately cool. Best results are obtained by using a mechanical spreader when applying dry fertilizer because the spreader does a more economical job by applying the fertilizer evenly and lightly. Of course, the job can be done by hand-spreading, but great care should be exercised to prevent spreading the fertilizer too thick in spots. Whatever fertilizer you use, always read the instruction carefully. Most suggest spreading the fertilizer when the grass is dry, then watering thoroughly to carry the plant food to the roots.

Liquid fertilizers have come a long way in the last few years. They are often considered quicker acting but not as long lasting as dry fertilizers. However, they can generally be applied in warm weather with good results.

Well rotted, well pulverized animal manures make fairly good fertilizer, but are not nearly as well balanced as good commercial preparations. And, too, they are often loaded with weed seeds and insects. Their chief benefit comes from the organic material they contain. However, animal manures are generally a great deal of trouble, are lacking in chemical balance, often messy to apply, and sometimes damaging to lawns.

The importance of fertilizing regularly cannot be overemphasized, since lack of fertilizer can frustrate the efforts of even the best seed, and is an open invitation to millions of weeds. Poorly fed lawn does not have the stamina and root system to crowd out weeds, and will soon give way to crab grass, dandelions, and a multitude of other uninvited growths. Similarly, starving grass falls easy victim to grub worms, cut worms, blight, fungus, not to mention everyday traffic.

Of course, it is important to kill crab grass and weeds . . . and now it can be done easily with the newer chemicals. But killing the enemy is only part of the battle. Proper feeding of lawns is even more important . . . and considerably less trouble.

We will be glad to show you the proper fertilizer to make your lawn green, healthy and vigorous. Drop in and let's discuss it.

Illustration courtesy Armour Agricultural
Chemical Co., producers of Vertagreen
Plant Food.

Garden



THROUGHOUT

JANUARY

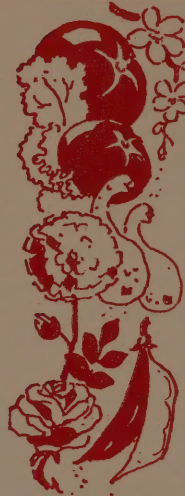


Sow pansies, forget-me-nots, phlox and hardy poppies in flats indoors. Check all stored bulbs and tubers and discard any diseased roots.

Cut sprays of early flowering shrubs for indoor flowering.

Look carefully over all ornamental trees and shrubs outdoors for scale infestation. If weather permits, spray now with an oil emulsion.

MAY



Prepare beds and sow seeds of hardy annuals early in the month.

Make up your bulb beds of lilies, day-lilies, dahlias, tuberose, etc.

Pinch back garden chrysanthemums. Give lilacs and peonies a good top dressing.

Prune all early flowering shrubbery immediately after flowering.

Finish planting vegetable garden.

SEPTEMBER



Plant peonies, firm down and water thoroughly. Divide lilies of the valley and divide and reset perennials. Plant or transplant daylilies.

Order bulbs for planting next month.

Stake chrysanthemums and water well.

Make all necessary rose beds in time to allow the ground to settle. Cut grass on lawn and repair or remake if necessary.

Plant cover crops under fruit trees.

Every month in the year there are things to do both inside and out to keep your flower garden beautiful, your lawns, trees and shrubbery in top shape and for the production of a bountiful vegetable garden.

Winter is when you plan your garden—while the garden sleeps, the gardener should be wide awake, planning for spring.

Spring is all action.

Summer and autumn are busy with harvest of fruits, flowers and vegetables.

Most of the aches and pains of gardening can be avoided by a little planning. It isn't necessary to do all the work at one time in the spring. In the flower garden, clean up and fertilize the bulbs first, then the perennials—after these, get the soil ready for the annuals. The vegetable garden should be prepared as needed. If it is plowed, rake it just before you plant, otherwise a crop of weeds will spring up. If the garden is spaded, dig only enough for the crops you are planting. There are nearly two months between pea planting and tomato setting. Don't do it all at once.

The proper planting time for the plants in your garden is determined by the ancestry of the plants. You are growing plants from far northern climates and from the tropics. It takes ingenuity and correct timing to take advantage of our changing seasons to give these plants the weather conditions they need.

At the end of the year it's a good idea to rejoice in the victories and learn from the defeats. At the same time, indulge in some garden arithmetic. Figure costs and make an approximate estimate of the returns of your vegetable garden. The latter can never be figured accurately, for it is very difficult to put a money value on really fresh vegetables!

We have compiled a month-by-month garden calendar which appears on these two pages to help you with your garden planning.

ALL TWELVE MONTHS

FEBRUARY

Check our catalog carefully and decide what seeds and supplies you need and come in early with your order. Bring out potted bulbs and put in a light window for spring forcing.

Oil and overhaul all garden tools, mowers and equipment.

Start indoors or in hotbed, petunias, snapdragons, Shasta daisies, etc., as well as tomatoes, pepper and eggplant.

Look over iris and herbaceous plants for aphids.

MARCH

Clean up around shrubbery and garden corners and burn any refuse to eliminate pests.

Give lawn a topdressing of good plant food. Sow grass seed. Sow annual seed of border stocks, Shirley poppies, gypsophila, larkspur, lupines, coreopsis, sweet peas.

Gradually remove windbreaks and covering from tender shrubs, evergreens, roses, bulbs and perennials.

APRIL

Keep newly transplanted material well watered. If bare spots show in the lawn, rake and sow grass seed.

Prepare all vacant flower beds and vegetable garden. Weather permitting, plant beets, radishes, peas, lettuce, onions, etc.

Sow larkspur, poppies, marigolds, poppies and nasturtiums in bare spots in the garden. Inspect tulips and iris for aphids and spray.

JUNE

A longer blooming period for annuals may be had by keeping the flowers cut and pinching back terminal growth.

Feed and water all plants well during flowering season.

Spray the vegetable garden well and set out plants of tomatoes, peppers, broccoli, eggplant.

Spray boxwood foliage with water every day during the summer when shaded.

Clip and trim all hedges.

Spray potatoes, cabbages, melons and squash.

JULY

Keep soil loose around newly planted shrubs and bedding plants. Water thoroughly.

Destroy weeds in gravel paths.

Take care not to use weed-killers near edging plants.

Sow another planting of zinnias, candytufts, larkspurs, gypsophila for fall bloom.

Feed tomatoes liberally if you want large quantities of well ripened fruits.

Sow for late-season crops beans, beets, carrots, sweet corn and cucumbers.

AUGUST

Weed and remove all dead flower heads and water plentifully when needed.

Water lawns after the sun is down. Sow new lawns where needed and keep moist.

Thin late beets and pickle cucumbers.

Evergreens may be transplanted now.

Separate large clumps of naturalized bulbs and replant.

Spray phlox for mildew; nasturtium for lice.

OCTOBER

Plant crocus and snowdrops in bare places underneath trees. Plant jonquils, tulips and other spring flowering bulbs.

Sow hardy annuals such as cosmos, calendulas, cornflowers, and cover the seed bed with a light mulch.

Pull tomato plants and remove to warm place so that green tomatoes may ripen slowly indoors.

Destroy all weeds to prevent germination of seeds.

NOVEMBER

Collect all leaf piles and add to compost heap. Plant garden roses.

Clean up vegetable garden. Plow it and leave ground rough-surfaced over the winter.

Nasturtiums, mignonette, calendula, nemophila and early flowering sweet peas may be planted in flats to insure early spring flowers.

A cover of well rotted manure should be spread around rhubarb.

DECEMBER

Make regular feeding stations for the birds. Hang food such as suet out of reach of cats.

Store garden seats and other furniture. All statuary should be taken in unless covered with waterproof material.

Oil all tools before putting them away. Study old catalogs and make plans for next spring. Gather Christmas greens—and have a Merry Christmas!



PETUNIA, Maytime



PETUNIA, La Paloma

ANNUALS

**Keep your garden bright
With colorful annuals**

From the thousands of seeds available, we have compiled a list of the very best flower varieties to give you a bright garden of color this year. If you don't see the variety you want listed, ask us and we'll be happy to get it for you.

CULTURE

The Culture Number shown for each variety refers to the "How to Grow" information found on pages 18 and 19.

GEO. KELLER & SONS CO.

909 Maine St.
Quincy, Ill.

Ageratum

(a) Culture 1, 4-9"

BLUE PERFECTION—A deep amethyst blue flower. Grows to 9 inches high.

MIDGET BLUE—Small 4-inch plants are covered with azure blooms. Compact.

Alyssum

(a) Culture 11, 4-6"

CARPET OF SNOW—Easily grown dwarf annual. Fragrant snow white flowers last from early summer until frost.

PINK HEATHER—1959 All America. A soft lavender pink, about 6" tall with good spread of bloom until late September.

ROYAL CARPET—In drifts of vibrant purple color or used as a neat edging for the flower bed. 4" high, 10" across.

Antirrhinum (Snapdragon)

(a) Culture 1, 1 1/2-3"

Rust Proof

MARDI GRAS—Colors include white, light yellow, canary-yellow, gold, orange, copper, orange-scarlet, light pink, pink, rose-pink, brilliant rose, cream, scarlet, etc., plus bi-colors. Of extremely vigorous and uniform plant habit.

ROCKET—All American 1960 Selection Red, orchid, rose, bronze, golden and white. Bred especially to flourish in the hot summer. These F¹ hybrids produce masses of cut flower quality spikes. Rust resistant.

Aster

(a) Culture 11, 1 1/2-2 1/2"

AMERICAN BRANCHING—Four inch double flowers of compact form.

COMET CREGO Wilt Resistant—Large colorful flowers with fluffy effect.

(ASTERS, Cont.)

LITTLE QUEEN — A new dwarf aster. Grows only 12" high, but flowers are 2½" to 3" across. Lovely red, white, light blue, dark blue and rose flowers literally cover the plants.

POWDERPUFF—Pink, azure, rose, crimson, white, scarlet and blue. Solidly made of 3-3½" fully-double flowers all on top. Often 20 long-stemmed cut flowers per plant. Highly wilt-resistant.

QUEEN OF THE MARKET—Early. Short plants. Compact double flowers. Mixed. Marvelous colors. Wilt resistant.

RAINBOW—An especially fine single flower for cutting and contains a range of color not to be found in other asters.

WILT RESISTANT SUPER GIANT, MIXED—An entirely new class of base branching, heavy stemmed fluffy ostrich feather flowers. 5-6" across.

Bachelor's Buttons

(a) Culture II or IV, 3'

JUBILEE GEM—Dwarf, 1' plant. Large, frosty blue blooms. All colors.

Balloon Vine (Love in a Puff)

(a) Culture I, 10' to 15'

A clear, free-growing vine with small white flowers, and balloon-like seeds.

Balsam (Lady Slipper)

(a) Culture II, 1½-2'

CAMELLIA FLOWERED — Double flowers all summer on bushy plants.

Bells of Ireland

(a) Culture I, 24"

An interesting novelty with a long graceful stem. Both foliage and flowers are the same attractive light green color. Flowers practically cover the stem.

Calendula (Pot Marigold)

(a) Culture II or IV, 1½'

FLAME BEAUTY — An outstanding new orange of the Pacific Beauty strain. Flowers are large and graceful and heat resistant.

PACIFIC BEAUTY—Golden flowers with drooping petals. Odorless.

Candytuft (Iberis)

(a) Culture III, 1'

WHITE HYACINTH — Large conical spikes of snowy flowers. Fine for edging.

Celosia (Cockscomb)

(a) Culture I or II, 1-3'

FOREST FIRE—Low grower with large crested heads, as rooster combs.

MARIGOLD, Cupid



ZINNIA, Peppermint Stick



For specific information on how to grow annuals, where they will grow best, how tall they will grow, time til bloom, and shape of the plant, turn to pages 18 and 19.



A BROWNIE SCOUT with a bouquet of the marigolds named for her, Marigold Brownie Scout. It is golden with red brown at the petal base.

GOLDEN FLEECE—Plumes are huge and dense, on long cutting stems, dozens of them to the plant. Stands any amount of hot weather, pest and disease resistant. Will cut and come again all season.

PAMPAS PLUMES—Tall, feathery heads in new bronze and sunset shades.

TOREADOR—A richer and brighter red than the earlier crimson colored cockscomb. Long blooming season, most compact, largest heads. Cristata type.

Chrysanthemum (Annual)

(a) Culture II or IV, 2'

DOUBLE MIXED—Large double flowers in many gorgeous colors. Graceful plant. Does well in light shady spot.

Clarkia

CHOICE MIXED—Large double flowers.

Cosmos

(a) Culture II or IV, 3-4'

FIESTA—Bi-color. Orange colored with scarlet longitudinal stripes.

MANDARIN—Strongly double orange flowers and lush green foliage.

ORANGE RUFFLES—Semi-double flowers. Golden orange. Airy effect.

RADIANCE—Beautiful, deep rose flowers have a rich crimson zone in center.

SENSATION MIXED—Huge single flowers, wavy petals, many colors.

Cynoglossum

(Chinese Forget-Me-Not)

(a) Culture II, 15"

FIRMAMENT—Hundreds of tiny indigo blue flowers. Resemble Forget-me-nots. Dwarf plants bloom all summer.

Didiscus (Blue Lace Flower)

(a) Culture I or II, 2 1/2'

COERULEUS—An attractive annual which blooms from July until frost. Flowers are pale lavender. Good cutting flower.

Eschscholtzia (California Poppy)

(a) Culture II, 1'

Large single poppy-like flowers in many showy colors. Fern-like leaves.

Everlasting Flowers

(a) Culture II, 1 1/2-3'

MIXED—Contains such favorites as Straw-flower and Globe Amaranth. Fine for dried winter bouquets.

Four O'Clock (Mirabilis)

(a) Culture III, 2'

Bushy plants covered with flowers of red, pink, white, violet and yellow. Flowers close in sun and open at 4 o'clock.

Gaillardia (Blanket Flower)

(a) Culture I, (Imp) VI, 2'

DOUBLE MIXED PICTA (a)—Showy round flowers with angular petals.

Gomphrena (Globe Amaranth)

BUDDY—A first rate bedding plant. Flowers shaped like red clover, but tighter and bright purple.

CISSY—White companion to Buddy.

Gourds, Ornamental

(a) Culture III, 12'

MIXED—Large and small kinds that will be useful for dried novelties.

Helianthus (Sunflower)

(a) Culture II, 6'

SUN GOLD—Large double flowers of a brilliant golden yellow.

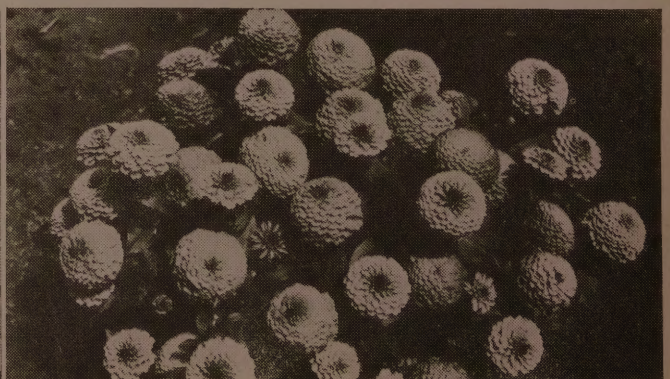
Hunnemannia (Mexican Tulip Poppy)

(a) Culture III, 1 1/2'

SUNLITE—Soft yellow double poppy type flower. Bluish fine cut leaves.

SWEET WILLIAM, Wee Willie

ZINNIA, Tom Thumb



Larkspur

WELCOME ALASKA—A mixture of red, white and blue of the supreme type of Larkspur.

Lavatera

LOVELINESS—Large bowl-shaped pink flowers shaded crimson on shrubby plants from midsummer until frost.

Linum (Flowering Flax)

(a) Culture III, (b) V, 1-2'

SCARLET (a)—Bright red flowers in a constant succession all summer.

Lobelia

(a) Culture I or V, 4"

CRYSTAL PALACE—Compact border plant with myriads of tiny bright blue flowers. For all low use.

Marigolds

(a) Culture I or II,

African

Tall Types, 2½-4'

BROWNIE SCOUT—A double-flowered French marigold with golden flowers, red at the bases of their petals. Easy to grow, blooms quickly.

GLITTERS—Clear yellow. Double. Bushy with long stem. A garden favorite.

YELLOW PYGMY—Dwarf, compact plant covered with tiny, double orange yellow flowers.

LEMONDROP—Clear lemon yellow of the miniature type. Profuse bloomer.

MELODY—Foot high plants with loads of orange ball-like flowers.

RED HEAD—Compact, with bright red, 2" blooms. Reddest of all.

PETITE, Orange, Gold Harmony—Ideal edging plants. The little double crested flowers are all double and literally cover their plants with sheets of bloom.

Single Dwarf Types, ½-1"

NAUGHTY MARIETTA—Open 2½" flowers are rich gold with maroon at base of petals. Fine for edging.

CRACKERJACK—Full marigold range of colors, primrose, yellow, gold and orange. Turns out uniformly large, double flowers measuring 4 to 5 inches across.

MAN-IN-THE-MOON—The lightest of all yellow marigolds with exceptionally solid, round flower heads composed of broad, crisply ruffled, pale moon-yellow petals. Vigorous with strong stems.

REAL GOLD—Large carnation-like flowers in striking bright orange color.

TOREADOR—All America 1960 Bronze Medal Winner. Beautiful bright orange with an abundance of full double giant flowers on excellent cutting stems.

Dwarf Chrysanthemum Flowered

CUPID—Mixed yellow, golden and orange. Quite early with odorless foliage.

SPUN GOLD—All American 1960 Selection. Semi-dwarf on compact bushy plants. Very early, with double mum flowers. Large, light golden yellow and much earlier than Cupid Gold.

French

Double Dwarf Types, ½-1'

COLOR MAGIC—12 inch mounds covered with variegated colored flowers. An unusual cross in French Marigolds. Flowers in combination of deep gold and red.

Morning Glory (Ipomea)

(a) Culture III, V or VII, 12'

HEAVENLY BLUE—Sky-blue flowers. Flowers close in bright sun.

PEARLY GATES—A shining white form of Heavenly Blue.

SCARLET O'HARA CLIMBING—Large velvety scarlet flowers. Very Showy.

Nasturtium

(a) Culture III or V

Dwarf or Bush Kinds 1'

CHERRY ROSE—Giant double, very sweet-scented. Rose flushed cherry.

MAHOGANY GEM—Deep velvet mahogany red double flowers.

Tall or Vine Kinds 3-10'

GOLDEN GLEAM—Large golden flowers. Double and fragrant.

SCARLET GLEAM—Fiery orange scarlet flowers. Double and fragrant.

GLORIOUS GLEAM HYBRIDS—A mixture of all the Gleam colors.

Nemophila (Baby Blue Eyes)

(a) Culture II, 6"

Many cup-shaped sky-blue flowers on low spreading plant.

Nicotiana

(Flowering Tobacco)

(a) Culture I or II, 2-3'

SENSATION—Long-tube starry flowers. Fragrant at night. White, pink.

Pansy

(a) Culture I, II or VIII, 8"

COLOR CARNIVAL—F₂ generation seed, possessing exceptionally large blooms on vigorous plants. The color range is remarkable, containing combinations of deep rich colors, predominantly red and wine shades.

SWISS GIANTS—Large flowering strain with fine range of gorgeous colors. Best of the improved pansies.

Petunia

(a) Culture I or IV

Small Flowered, 10-14"

COMANCHE—The reddest of red petunias, richer, brighter, more uniform scarlet red. Single flowers 2½ to 2¾ inches in diameter. About 13 inches high.

GLITTERS—The first real red and white bicolored introduction. It grows only 8 inches high, nana compacta type, an excellent and very showy dwarf bedder and edger.

HYBRIDA—An F₂ blend of dwarf petunias which include the widest range of colors. The hybrid vigor of these petunias assures sturdy plants which bloom freely.

CARNIVAL—New strain of grandiflora Petunias that covers a much wider color range than ever before available. Large flowers produced in profusion on compact spreading plants. Very showy.

FIRE DANCE—Exquisite new hybrid bedder, dwarf fringed grandiflora. Rich scarlet with a bold flash-light yellow throat.

ASTER, Little Queen



BARTONIA, Stella Polaris





MARIGOLD
Glitters



PORTULACA, Double

ZINNIA, Thumbelina



RUDBECKIA,
Gloriosa Double Daisy

GROW ANNUALS FOR EASY GARDENING

THUMBELINA is a Gold Medal winner in the 1963 All-America selections. Since 1939 only two annuals have attained this award: Firechief (red petunia) in 1950, and now Thumbelina Zinnia . . . a truly dwarf zinnia.



DAHLIA, Early Bird



PETUNIAS, Carnival



ALYSSUM, Rosie O'Day

GROW ANNUALS FOR COLOR

LA PALOMA—Pure white with a yellow throat, 100% grandiflora 3½ to 4 inches. Well fringed and extremely free flowering. Very uniform and vigorous, semi-dwarf and spreading which make it excellent for pot, bedding, boxes and borders.

LITTLE GIANTS MIXED—Compact plants with medium flowers in many colors.

MAYTIME—An F₁ hybrid grandiflora fringed petunia. Light salmon pink and free flowering.

POPCORN—Large, pure white, plain edged flowers. Early blooming, exceedingly dwarf and compact.

PRIMA DONNA—Improved F₁ hybrid in the giant dwarf fringed grandiflora class. A bright rose-pink petunia excellent for home gardens. True large size and delightfully fringed, wavy petals on 12-inch bedding type plants.

RED SATIN—Incredibly vivid and shining scarlet flowers. Blooms freely everywhere, and heat or sunshine will not fade the color of this F₁ hybrid.

THEODOSIA—Large ruffled flowers of deep rose pink with golden throat. Very showy and lovely.

Phlox (Annual)

TWINKLE—Choice mixed colors, make a delightful bedding and edging subject. Growing only six inches high. Twinkle covers itself with a twinkling mass of star-shaped flowers.

GLAMOUR—All America 1960 Selection. A tetraploid of mid-salmon with deeper salmon eye. Of uniform growth—12"-15" high with large floret size.

Poppy

(a) Culture IV, 1½-3'

SHIRLEY, MIXED—The easily grown, lovely annual poppy. Many bright colors. Grows easily and self-sows.

Portulaca (Moss Rose)

(a) Culture III or IV, 6"

DOUBLE MIXED—All double.

ROCK GARDEN VARIETIES—Brilliant colors.

Salvia (Flowering Sage)

(a) Culture I, 2-3'

RED—The well-known Scarlet Sage that is a blaze of vivid scarlet in summer.

ST. JOHN'S FIRE—Finest all-purpose salvia. Brilliant scarlet, blooms from mid-July until frost. Begins to flower when only a few inches high.

Salpiglossis (Painted Tongue)

(a) Culture III, 30"

MIXED—Large petunia-like flowers of rich velvety colors, veined with gold.

Scabiosa

(a) Culture III or IV, 2'

BLUE MOON—Large double flowers of deep lavender blue.

CORAL MOON—New coral shade. Large double flowers on firm stems.

IMPERIAL GIANTS, MIXED—Large globe-shaped flowers in a wide range of red, white, coral rose and blue.

Giant Schizanthus (Butterfly-Flower)

(a) Culture II or IV, 1½'

ANGEL WINGS—Small flowers shaped like multicolored butterflies. Delicate cut leaves. Free flowering, decorative.

Sea Lavender (Statice)

(a) Culture I, 2'

MIXED—Small tubular flowers in colorful branching spikes. Decorative.

Snow-On-The-Mountain (Euphorbia)

(a) Culture III, 2'

Bright green foliage edged with white. Good for edging or contrast.

Stocks (Gilliflower)

(a) Culture I or IV, 1-2'

DWARF TEN WEEKS—Low growing with strong spike. Many fine colors.

Sweet Peas

(a) Culture III, 3'

CUTHBERTSON—Fine new heat resisting strain, very early, free flowering and fragrant. Scarlet, white, rose pink, navy blue, lavender and mid-blue.

LITTLE SWEETHEART—Bred especially for the home gardener to use for borders, bedding or pot plant culture. Forms a perfect mound of flowers 8" high and wide. Flowers are of the Ruffled Spencer type in a full color range.

EARLY SPENCER—Large fine flowers that flower in early summer. The standard ones for outdoor use. Colors mixed.

Sweet Sultan

(a) Culture II or IV, 2½'

MIXED—Lovely colorful thistle shaped flowers. Easily grown.

Tithonia

(Golden Flower of the Incas)

(a) Culture I, 4'

TORCH—Blossoms from July until frost with quantities of long stemmed single flowers 3 to 4 inches across resembling single dahlias of intense fiery red.

Verbena

(a) Culture I, 8"

BLUE SHADES—Medium and dark blues in mammoth type.

GRANDIFLORA MIXED—Huge flower clusters, all colors. Ideal for beds.

LAVENDER GLORY—Lavender with white eye. Large clusters. Fragrant.

SCARLET—Flaming scarlet heads. Brilliant in beds.

Vinca (Periwinkle)

(a) Culture III, 15"

LITTLE PINKIE—New selection with dwarf habit of growth, half the height of regular vinca with identical rose colored flowers.

MIXED—Colorful starry flowers on glossy-leaved, bushy plants. Does well in shade and under most conditions.

Wild Flower Mixture

(a) Culture II or III, ½-3'

Old fashioned flowers in a fine mixture for all season flowering. Sow thinly and enjoy continuous flowers and delightful surprises. These are not wild flowers of the fields but a selection of garden flowers which will give a "wild" garden look.



NASTURTIIUM, Golden Globe



ZINNIA, Lilac Time

PEPPERMINT STICK—Bi-colored. Basic red flowers, white or yellow stripes.

Large Types, 2-2½'

BLAZE—Giant hybrid, fiery red and orange. True to color and flowers are bigger than most zinnias.

PINK LADY—A bi-color with the center of the flower a strong pink. As the petal expands the pink softens to a more delicate shade and blends into a buff color with shrimp undertones.

For detailed information on culture, care, and growing habits of annuals, turn to pages 18 and 19.

LILAC TIME—The first lavender zinnia in the giant hybrid cactus flowered family. An excellent flower for mass color in the garden.

SUPER CROWN O'GOLD—Large well-formed flowers in rich pastel shades, each petal overlaid at the base with deep golden yellow.

ORTHO POLKA—A giant bloom of the Peppermint stick coloring. Colors in this bright mixture include combinations of pink and white, red and white, lavender and white, purple and white, scarlet and yellow, etc.

SUPER GIANTS—Extremely large, deep fluffy or loose-petaled flowers in a full color mixture.

Zinnia

(a) Culture I or II

Small Types, 18-2"

CUPID—Dwarf, compact little plants bearing quantities of button flowers. full color mixture.

RED RIDING HOOD—Deep scarlet flowers 1" across. Free flowering. Fine border plant of Lilliput type.

PERSIAN CARPET—Bi-colored. Rich deep tones of red and gold along with sunset shades. Medium-sized blooms on good cutting stems.

IMPROVED LILLIPUT—Lovely soft colors in the miniature strain. Fine for borders or small bouquets.

(Dwarf Medium Flowered)

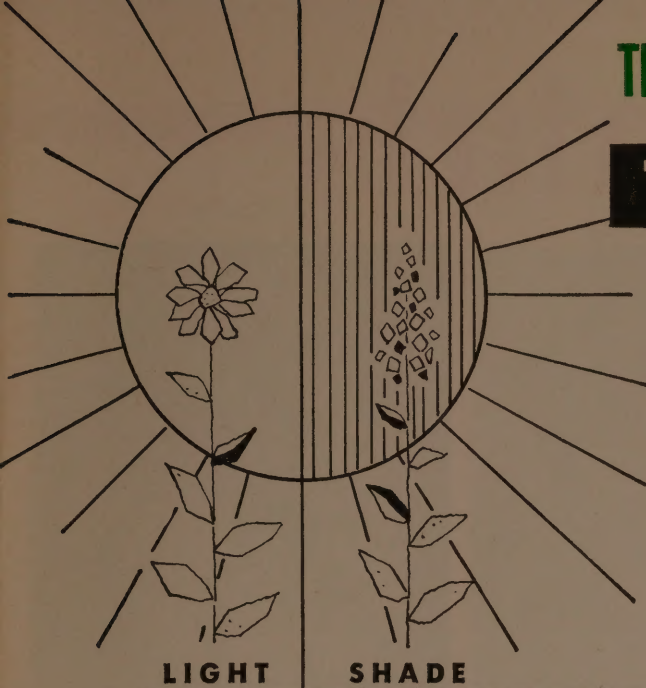
CUT AND COME AGAIN—Fully double, well-rounded flowers. Ideal for cutting. All colors.

GOLD MEDAL FINEST MIXED—All colors, with perfect color balance.

TOM THUMB MIXED—Lilliput type flowers on a very dwarf plant. For low borders and miniature displays.

THESE MAKE FLOWERS GROW:

THE SUN



Sunlight is the prime requisite for all garden plants because, even with plenty of plant food and water, most plants will die without an adequate supply of sunlight. Most annual and perennial flowers need at least half a day of direct sunshine. Plants grow tall and spindly looking for sunshine they can never reach if they are planted in a shady spot.

There are a few, though, which do fairly well in the shade or with partial sun. The following are worth a trial in shady spots: **Bleeding Heart, Candytuft, Cleome, Coreopsis, Cornflower, English Daisy, Godetia, Larkspur, Lobelia, Lupine, Nasturtium, Nicotiana, Pansy or Vinca.**

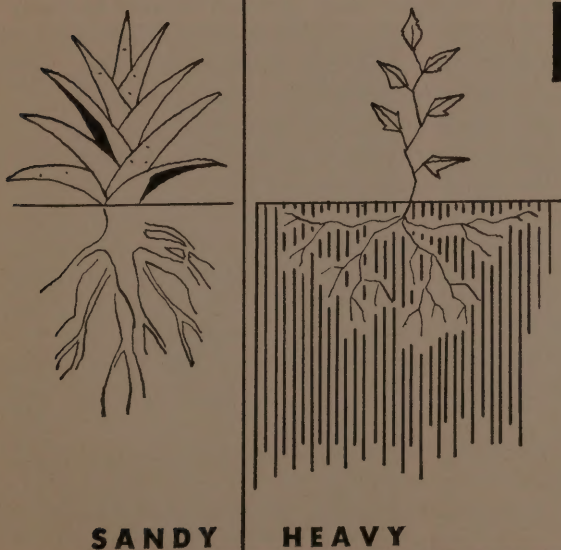
THE RAIN



The first necessity in growing plants is water. Plants are made up for the most part of water — 60 to 90%. Without water, no plant can live and grow. Any soil, under good drainage conditions will hold, when saturated, a definite amount of water, but when rainfall is inadequate it is necessary to provide this life-giving element.

In spots where the sun beats down all day long, many flowers will not prosper. But some will do well even in these difficult locations. A few you might try are: **Ageratum, Alyssum, Cosmos, Dianthus, Gaillardia, Marigold, Petunia, Annual Phlox, California Poppy, Portulaca, Salvia, Scabiosa and Zinnia.**

THE SOIL



Soil consists of 2 important components. **Mineral soils** which are formed of decomposed mineral matter, and **muck or peat soils** which are derived from and contain large quantities of organic matter.

Mineral soils consist of mixtures of sand, silt and clay. Crop-producing of a soil more abundant in sand is increased by reducing acidity, adding deficient nutrients and increasing organic material. These coarse-textured soils are low in water holding capacity and for this reason are unproductive unless irrigated, even though nutrients are supplied in abundance.

Muck soils require application of large quantities of potash since they are notably deficient in potassium.

Perennials

*"The kiss of the sun
for pardon,
The song of the birds
for mirth.
I am closer to God's heart
in a garden
Than anywhere else
on earth."*



AQUILEGIA, (Columbine)



DELPHINIUM, Giant Pacific Hybrid

Alyssum

(hp) Culture VI, 1'

SAXATILE (Gold Dust)—Hardy, compact growth. Produces golden yellow flowers.

Aquilegia (Columbine)

(hp) Culture VI, 2½'

McKANA'S GIANTS—Larger flowers and longer spurs, as well as richer and more beautiful colors than other columbines. Three feet in height and the striking terminal flowers are on wiry stems.

Arabis (Rock Cress)

(hp) Culture VI, 6"

Creeping plants with small flowers in early spring. Fine for edging.

Armeria (Thrift)

(Sea Pink)

(hp) Culture VI, 3"

Dwarf rock plants with grassy foliage and has dense globular flowerheads.

Aubrietia (Purple Rock Cress)

(hp) Culture VI, 6"

A creeper with large colorful flowers in spring. Ideal with bulbs. Purple shade.

Campanula (Canterbury Bells)

(b) Culture VIII, 2'

CUP AND SAUCER—Bell-shaped. Saucer of petals at base. Mixed colors.

SINGLE—Large bell-shaped flowers in many colors. Graceful plants.

Candytuft (Iberis)

(hp) Culture VI, 1'

PERENNIAL GIBALTARICA—Lilac-pink blooms. Needs protection in the winter. Prefers hot, dry location.

SEMPERVIRENS—The perennial white Candytuft. Most desirable perennial for borders, rock gardens. Is evergreen.

While it is possible to start the seeds in the location you intend for them in your garden, it is generally better to prepare a small nursery bed in a spot where you can give them special care as seedlings, transplanting the started plants in their permanent location in the fall early enough to give them a chance to get established before cold weather begins.

You can plant seed of perennials in midsummer or later, but it is better to sow the seed earlier. This will give the plants an opportunity to acquire greater strength for wintering over and in many cases will result in a larger number of flowers next year.

In the years to come, after the plants have grown to such a size as to be choked with their own growth, it is good practice to divide the clumps and transplant to keep them growing actively.

Some of the popular hardy perennials you can start from seed for beautiful permanent places in the garden are:

Alyssum Saxatile—loads of bright yellow flowers in the spring. Excellent for rock gardens.

Aquilegia (Columbine)—unique, long-spurred flowers in many colors.

Candytuft Sempervirens—low growing mounds of white.

Carnations—Chabaud's are the largest flowered.

Shasta Daisies—either single or double flowered.

Dahlias—a surprising number of types and colors can be grown from seed and the bulbs saved each year.

Delphiniums—big, impressive and beautiful.

Geum—comes in both scarlet and yellow.

Gypsophila (Baby's Breath)—airy and graceful. Beautiful in mixed bouquets.

Poppy—both Iceland and Oriental are perennials.

Tritoma (Red Hot Poker)—spectacular spikes. Biennials bloom for only one year and take a year to start, but they are well worth the trouble.

Foxglove (Digitalis)—with tremendous spikes of intricately speckled, closely-placed hanging florets.

Canterbury Bells (Campanula)—with nodding pink and white bells.

Carnation

(hp) Culture or VI, 18"

CHABAUD'S GIANTS—Large double flowers with sweet fragrance. All colors. Flower in six months. Profuse bloomers.

Coreopsis

(hp) Culture VI, 2'

SUNBURST—Large, double flowers of rich golden color. Fine for cutting. Sturdy, good grower and dependable.

Dahlia

(hp) Culture I or II, 14"

UNWIN'S IDEAL BEDDING—Semi-double flowers on low bushes. Fine for beds or borders. Many colors.

Daisy, English (Bellis Perennis)

(hp) Culture VI, 8"

Low plants with colorful double daisies in early spring. Ideal flower for beds.

Delphinium (Perennial Larkspur)

(hp) Culture VI, 5'

GIANT PACIFIC HYBRIDS—World famous strain of immense double flowers on tall stems. Colorful. Blooms June.

Dianthus (Pinks)

(p) Culture I, 1'

DOUBLE AND SINGLE MIXED—Fine mixture of colorful, scented pinks.

Foxglove (Digitalis)

(b) Culture VII, 3'

PERENNIAL MONARCH MIXED (hp)—Superb daisy type flowers in shades of red and yellow. 1½ to 2 feet high.

Gypsophila (Baby's Breath)

PERENNIAL WHITE (hp)—Large loose clusters of small flowers give misty effect. Excellent for cutting. 1½-3 tall.

Hibiscus (Rose Mallow)

(hp) Culture VI, 4'

GIANT MIXED—Huge bell-shaped flowers in white, pink, red. Tall plant.



LINUM, Perennial Blue

Hollyhock

(hp) Culture VI or VIII, 5'

DOUBLE, MIXED—Large double flowers on tall spikes. Bloom in midsummer.

Linum (Flowering Flax)

(hp) Culture VI, 6"-8"

PERENNIAL BLUE—Low bushy plant blooming from spring to midsummer. Small, clear blue flowers.

Lupine

(hp) Culture III or VII, 3'

PASTEL PIXIE DWARF—More dwarf and compact. Colors include rosy-white, white, pink, lilac, blue shades, and bi-colors of these. They make a delightful pastel display in the garden.

RUSSELL'S MIXED—Finest of all the lupines. Brilliant colors in long, strong spikes symmetrical closely packed.

The reference "(hp)" means Hardy Perennial, "(p)" is Perennial, and "(b)" is Bi-annual. For further information on culture and habits, please turn to page 18.

Phlox

(hp) Culture VI, 8-12"

DWARF MIXED—The finest large flowered Dwarf Phlox. The shades are clear and soft. Blue, Pink and White.

GIGANTEA ART SHADES—A strain with flowers 1½" in diameter, in a remarkable variety of soft color tones.

Poppy

(hp) Culture VI, 1½-2'

ICELAND MIXED—Excellent perennial for borders, rock gardens. Large colorful, ferny foliage. Neat compact tufts.



PHLOX, Gigantea Art Shades

ORIENTAL SCARLET—Huge red blooms in early summer from perennial root. Useful for bold color. Flower profusely.

Primula (Primrose)

(hp) Culture VI, 6-10"

ENGLISH PRIMROSE (Vulgaris)—Creamy yellow. 6-10" high.

Shasta Daisy

(hp) Culture VI, 2'

ALASKA—Largest of the Shasta strains. Big, white flowers yellow centers.

Sweet William (Dianthus Barbatus)

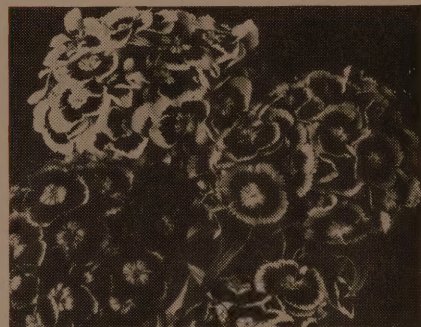
(hp) Culture VI, 1½-2'

DOUBLE DWARF MIXED—Lovely single pinks in large flat clusters. Fine for cutting. 1½-2'.

Tritoma (Red Hot Poker)

(p) Culture VI, 3-4'

CHOICE HYBRIDS—Narrow tubular flower on tall spikes, orange red. Graceful greasy foliage. Not perennial under some conditions. For border.



SWEET WILLIAM

Border of Perennials



FLOWER

PLANTING GUIDE

FLOWER

KEY—For classification of flowers by purpose, location, etc., see the second column below.

A—For dry, hot locations.
B—For a succession of blooms.
C—For shady locations.
D—For poor soil.

E—For edging.
F—For the rock garden.
G—For their foliage.
H—Everlasting for winter bouquets.

I—For their fragrance.
J—For porch or window boxes.
K—Climbing vines.
L—For backgrounds.

	Height (Inches)	Suitable for	Average Days to Germinate	Approx. Time of Bloom	Shape of Plant
Ageratum	4-12	E F J	5-10	10 Wks.	bushy
Alyssum, Sweet	2-12	B C D E F I J	5-10	6 Wks.	spreading
Antirrhinum	12-60	C I L	20-25	3-4 Mos.	bushy
Aquilegia	18-36	C E F	15	3 Mos.	branchy
Balsam	14-20	A E	10-12	6 Mos.	erect
Calendula	12-36	D	10-14	12-14 Wks.	bushy
Campanula	18-24	F	8-15	10-12 Wks.	bushy
Candytuft	6-18	B F I	5-10	8-10 Wks.	bushy
Centaurea	18-36	A B C D E I J	5-20	3-4 Mos.	erect
Chrysanthemum	24-36	A E	5-20	8-10 Wks.	bushy
Celosia	12-36	D E H	20-25	10 Wks.	bushy
Cosmos	36-60	A	5-15	10-12 Wks.	bushy
Coreopsis	18-36	A B D	10-20	4-5 Mos.	bushy
Dahlia, Dwarf	14	F	10	3-4 Mos.	bushy
Delphinium	36-72	L	15-21	3-4 Mos.	tall
Digitalis	30-48	F	10-20	3-4 Mos.	erect
Dianthus	4-15	F I	5-10	12 Wks.	bushy
Eschscholtzia	10-12	C D F	5-12	12-15 Wks.	bushy
Four O'Clock	24-30	A D	5-10	3-4 Mos.	bushy
Gaillardia	18-30	D	15-20	2-3 Mos.	bushy
Godetia	12-24	C D	15-20	2 Mos.	erect
Gypsophila	18-36	B H	15-20	8-10 Wks.	branching
Helichrysum	24-36	H	5-10	3 Mos.	bushy
Hollyhock	48-84	L	5-20	10 Wks.	slender
Kochia	30-36	A B	15-18	Foliage	bushy
Larkspur, Annual	30-72	L	15-20	10-12 Wks.	tall
Lathyrus	60-72	I K	25-40	2-3 Mos.	vine
Lobelia	4-8	E J	10	10-12 Wks.	bushy
Marigold	8-36	B J	5-8	6-8 Wks.	bushy
Mignonette	10-12	B I		3-4 Mos.	erect
Moon Flower	12 ft. or more	I K	5-8	4-5 Mos.	vine
Morning Glory	12 ft. or more	A K	5-8	3-4 Mos.	vine
Nasturtium	12-36	D E F K	8-15	2-3 Mos.	bush-vine
Nigella	10-18	B F	10-15	10-12 Wks.	bushy
Nicotiana	30-48	I	20-25	10-12 Wks.	branchy
Pansy	4-8	C E F	10-15	10-12 Wks.	clump
Petunia	10-24	D E F J	18-20	10-12 Wks.	bushy
Phlox	10-18	A B C F I J	20-25	8-10 Wks.	bushy
Poppy	18-36	B	20	12-15 Wks.	erect
Portulaca	4-6	A D E F J	18-20	6 Wks.	spready
Salvia	12-42	A	15-25	3-4 Mos.	bushy
Scabiosa	18-30	I	18-20	2-3 Mos.	bushy
Stocks	12-24	I	5-15	12-14 Wks.	bushy
Schizanthus	18-36	C E	20-25	6-8 Wks.	bushy
Sweet Pea	36 or more	K	15-20	10-12 Wks.	vine
Sweet William	12-24	F	10	12 Wks.	bushy
Verbena	6-12	E F J	8-10	12 Wks.	spready
Wallflower	12-18	I	5-12	2-3 Mos.	bushy
Zinnia	12-36	A F	5-10	6-8 Wks.	bushy

The numbers I to VII, found with flower listing refer to the following cultural notes which give directions for growing all the flowers we list.

Culture I

These flowers need a long season and must be started indoors if a full blooming period is to be had. If early bloom is not important, they will bloom later in the summer when sown directly in the garden. Some gardeners sow both ways to obtain a succession of flowers.

Culture II

These are the quicker-growing annuals that can be sown directly in the garden and will bloom in time to make a good display for most of the summer. If wanted especially early, they should be started as directed indoors in seed beds or flats.

Some flower seedlings are rather delicate. Extra care in preparing the seed bed will pay dividends in better plants. Prepare soil with a liberal amount of mixed fertilizer and organic matter and dig it in. Rake the surface until it is smooth and pulverized. Sow the seed at a depth equal to three times the diameter of the seed. Fine seed can be spread on the surface and pressed in uncovered. Keep soil moist by light spraying until the seedlings have formed the first true leaves. When they are large enough to handle, they may be transplanted to the garden.

Culture III

These flowers do not transplant well. They should be planted where they are to bloom. Sow as soon as the weather begins to warm in the spring. *Otherwise the culture is the same as II.* Sow seed thinly or remove the smaller plants after they are up. These can be handled as pot-grown plants as in Culture VIII.

Culture IV

These flowers are unusually hardy annuals that can withstand very cool weather. They are often sown late in fall so they can start growing the first warm days of spring. If not sown in the fall, they should be planted as early in the spring as possible. Fall sowing gets the seeding job out of the way before the spring rush.

Culture V

These flowers, while garden subjects, are also useful for winter-flowering house plants. *For garden use, handle as in Culture II.* For winter flowering indoors, plant fairly late in the season and transplant into small pots as soon as they are large enough. Keep moving them to larger pots as roots fill the soil until they are finally in six-inch pots. Annuals in pots should have at least six hours of direct sunlight daily if they are to flower.

Culture VI

Perennials can be seeded at almost any time of the year. Best periods are early in the spring or in early summer when the rush of spring work is over. A cold frame or shel-

CULTURE

VEGETABLE PLANTING GUIDE

tered bed which can be shaded from the direct sun is best. Prepare soil thoroughly with plenty of organic matter. A loose, friable soil will produce a thick mat of roots so that the seedlings will transplant more easily. Perennial seedlings are rather weak growers needing extra care. In covering the drills in which the seeds are sown, use either pure, clean sand or a mixture of half sand and half peat moss. This prevents packing of the soil over the seeds. Always water with a fine spray.

As soon as the second leaves form, seedlings may be transplanted into their permanent position. Or, if more convenient, they may be left in the seed bed until the following spring. Under this culture, only a few species will bloom the first year and they will not produce normal flowers until the following year. Planting earlier does increase the chances for flowers the first year. But, if it is more convenient, *Culture I* may be used. Delphinium seed is often started in August to take advantage of the cooler nights for the seed will not grow when the soil temperature is above 77 degrees.

Culture VII

These varieties need a longer growing season than can be given them outdoors. And because they do not transplant well, they must be started in pots and set out without disturbing the roots. *Otherwise Culture is the same as I.* The use of plant bands allows you to set the seedlings out without disturbing the roots. The bands soon rot away and the seedlings will grow as though started in the garden.

If clay pots are used, the excessive drying can be avoided by placing the pots in a flat and filling the space between them with damp peat moss or vermiculite. Be sure to keep this material moist or it will draw moisture from the pots.

Culture VIII

These flowers are biennials. They make a leafy growth the first year but do not flower. The leafy growth of the first year forms food for blooming the following year. The flowers appear the second year, then die. This means that a continuing show from biennials must be provided by starting new plants every year to replace ones flowering. Biennials are handled in the same way as perennials except that they are started early in the spring to allow the plant to store food for the next year's bloom.

Pansies are tender perennials that are treated as annuals or biennials. When grown as annuals, they should be started indoors about six weeks before time for planting out in early spring. When grown as biennials, the seed is started in late summer and the plants carried over winter in protected spots where extreme temperature and moisture are avoided. Mulching or the use of frames may be necessary in your particular garden. Pansies do best under conditions of constant, moderate moisture, partial shade and a humus-rich soil. Pinching off old flowers will prolong the flowering season.

KEY—For "Time to Plant" in fifth column below.

A—As soon as soil can be worked.

B—Two weeks before last spring frost.

C—Week before last spring frost.

D—After all danger of frost.

E—When danger of hard freeze is over.

F—In time to allow maturity before freeze.

	Seed Needed for 50 ft. of row	Space Between Rows (inches)	Space Apart In Row (inches)	Depth to Plant (inches)	Time to Plant	Days Growing Period	Edible Period	Approx. Yield Per 50 ft. of Row
Artichoke	1/8 oz.	48	48	1/4	A			
Asparagus	1/2 oz.	24	20	1/2	A	2-3 yr.	4-5 wk.	25 lbs.
Beans, Bush	1/2 lb.	24	4	1 1/2	C	50-70	4-5 wk.	20 qts.
Beans, Lima	1/2 lb.	24	3	1	C	60-90	3-4 wk.	32 qts.
Beans, Pole	1/2 lb.	36	8	1 1/2	C	60-90	6-8 wk.	30 qts.
Beans, Pole Lima	1/2 lb.	48	8	1 1/2	C	88	3-4 wk.	1 1/4 bu.
Beets	1/2 oz.	24	3	1/2	A	55-100	4-6 wk.	1 1/4 bu.
Broccoli	1/8 oz.	24	24	1/2	A	80-120	8-10 wk.	25 head
Brussels Sprouts	1/8 oz.	24	18	1/2	A	70-110	6-8 wk.	15 qts.
Cabbage	1/4 oz.	24	12-24	1/2	A	75-130	4-6 wk.	35 head
Chinese Cabbage	1/2 oz.	24	12	1/2	F	75-85	4-6 wk.	40 head
Carrots	1/4 oz.	16	3	1/2	A-F	65-85	6-8 wk.	24 qts.
Cauliflower	1/4 oz.	24	20	1/2	A-F	65-90	1-2 wk.	25 head
Celery	1/8 oz.	24	6	1/4	E	100-140	6-8 wk.	100 stalk
Collards	1/4 oz.	30	18	1/2	F	24-36	until fall	3 bu.
Corn, Sweet	4 oz.	36	9	1	B	65-100	1-2 wk.	100 ears
Corn, Pop	3 oz.	34	8	1	B	115		
Cucumber	1/2 oz.	48	36	1/2	D	60-100	4-6 wk.	100 fruit
Eggplant	1/8 oz.	36	24	1/2	D	110-150	until fall	75 fruit
Endive	1/2 oz.	18	12	1/2	A	80-100	3-4 wk.	50 head
Kale	1/2 oz.	32	22	1/2	A-F	70-100	until fall	50 plants
Kohlrabi	1/4 oz.	24	6	1/2	A-F	55-75	2-3 wk.	1 bu.
Lettuce	1/4 oz.	18	12	1/4	B	90-120	3-4 wk.	50 head
Muskmelons	1/2 oz.	60	48	3/4	D	90-120	3-4 wk.	50 fruit
Mustard	1/4 oz.	24	9	1/2	A-F	28	until fall	1 bu.
Okra	1 oz.	36	15	1	D	50	until fall	450 pods
Onions	1/4 oz.	18	4	3/4	A	110-140	4-8 wk.	1 bu.
Onion Sets	1 pt.	12	6	1/2	A	50-100	4-8 wk.	60 bun.
Parsley	1/4 oz.	12	6	1/2	E	90-120	until fall	45 bun.
Parsnips	1/2 oz.	18	4	1	A	100-150	until fall	1 bu.
Peas	3/4 lb.	24	2	1	A	50-70	1-2 wk.	1 bu.
Peppers	1/8 oz.	30	20	1/2	D	100-140	until fall	300 fruit
Pumpkin	2 oz.	96	60	3/4	D	90-120	until fall	25 fruit
Radish	1/2 oz.	12	2	1/2	A	25-30	1-2 wk.	50 bun.
Rhubarb	1/2 oz.	48	48					100 stem
Rutabaga	1/8 oz.	24	6	1/2				1 bu.
Salsify	1/2 oz.	18	2	1/2	A	130-150	fall	300 roots
Spinach	3/4 oz.	18	5	3/4	AIF	40-60	1-3 wk.	1 1/2 bu.
Spinach, N.Z.	1/2 oz.	36	18	1	E	70	until fall	50 lbs.
Squash, Bush	1/4 oz.	48	48	1	D	60-80	until fall	60 fruit
Squash, Winter	1/4 oz.	72	72	1	D	100-140	fall	35 fruit
Swiss Chard	1/2 oz.	18	15	1	A	50-60	unti fall	25 lbs.
Tomatoes	1/16 oz.	40	36	1/2	D	100-150	6-12 wk.	2 bu.
Turnips, Roots	1/4 oz.	18	4	1/4	A-F	50-70	1-3 wk.	1 bu.
Turnips, Greens	1/2 oz.	12	4	1/4	A-F	50-60		1 1/2 bu.
Watermelons	1/2 oz.	12	4	1/4	D	90-130	3-4 wk.	20 fruit



VEGETABLES

Asparagus

MARY WASHINGTON (fr). Rust resistant, heavy yielder. Large, dark green spears. Harvest starts 3rd season.

Beans, Bush Snap

STRINGLESS BLACK VALENTINE. Oval pods, good shipper, medium green. Is less stringy than regular Black Valentine. Similar to Cherokee Wax. 50-52 days.

TOPCROP (fr). Resistant to Mosaic. Good home garden variety, is high yielder. Straight or slightly curved, round, med. dark green pods are 6" long, stringless, practically fiberless. 50 days.

WADE (fr). Highly resistant to Mosaic. Dark green, round pods. Tendergreen type. 53 days.

TENDERGREEN (fr). Stringless, round, dark green podded variety. Excellent for home use. 54 days.

CONTENDER. Pods similar to Black Valentine in shape. Resistant to bean mosaic. Stringless, high yielding. For late planting. 50-52 days.

Beans, Pole Snap

KENTUCKY WONDER (fr). High climbing, very productive. Known for excellent flavor. Long, curved, slightly stringy pod. 65-70 days.

FLORIGREEN. Similar to some Ky. Wonder types but pods flatter and darker green. Resistant to Mosaic and rust. 60 days.

BLUE LAKE (fr). High producing, vigorous, stringless. Pods round, smooth, straight, dark green. Mosaic resistant. 65-70 days.

McCASLIN. Vigorous, high yielding, flat podded, slightly stringy, good flavored. Not recommended for processing. 65-70 days.

Beans, Bush Lima

HENDERSON BUSH (fr). Widely used baby lima for home and market. Productive, high quality. 65 days.

FORDHOOK 242 (fr). Pods have 3 or 4 large, thick, light green beans. 70-75 days.

THOROGREEN (fr). Small, green-seeded type. Early maturing, productive. Also called Allgreen, Cangreen, Green-Seeded Henderson, Nemagreen, and Thaxter. 62-67 days.

USE CAUTION IN SELECTING VARIETIES

We have listed here—space permitting—the vegetable varieties most popular in our state, and those recommended by the Agricultural Extension Service. Of course, not all varieties will grow as well in all parts of the state, so carefully consider your locality before selecting varieties. Remember, too, that many varieties have several different names.

For the convenience of our out-of-state customers, we have included some favorite varieties suited to their localities.

Generally speaking, most varieties are classed as early, medium or main crop, and late. Therefore, it would be wise to consider your intended planting dates and the average maturity range we have given for each, before selecting the variety.

Freezing, Harvesting, Canning

Varieties generally considered suitable for freezing are marked "(fr)." If you do not freeze, you can extend your harvest by making successive plantings. Varieties that are suitable for fresh are usually acceptable for canning, if harvested at the proper stage of maturity.

Beans, Pole Lima

KING OF THE GARDEN (fr). Heavy yielder. Pods contain 4-5 very large, flat greenish-white beans. 88 days.

CHALLENGER (fr). Large seeded, high quality Fordhook type; bears over long season. 90-95 days. Also called Burpee's Best.

CAROLINA SIEVA (fr). Vigorous climber; bears over long period. Medium small seed, good quality. 77-80 days.

Beets

CROSBY'S EGYPTIAN. Popular early beet, free from fiber. Semi-globe shape, 3" in diameter. 56 days.

EARLY WONDER. Flattened globe, roots turnip-shaped, dark purplish red. Good early home garden variety. 55-60 days.

RUBY QUEEN. An All-America winner. Sweet, tender flesh, short tops. For early home gardens. 56 days.

DETROIT DARK RED (fr). Excellent for canning and bunching. Roots globe shaped, skin dark blood red, flesh deep red with slight zoning. 60-65 days.

Broccoli

DeCICCO (fr). For spring or fall crop. Early maturing; central head large, green to bluish green. Slow in producing side shoots. 75-80 days from plants.

GREEN SPROUTING (fr). Often called Italian Green or Calabrese. Plant 24 to 30 inches tall, head to 4 inches in diameter with small side sprouts developing after main head has been cut. 65-80 days.

WALTHAM 29 (fr). Suitable variety for fall harvest. Plants are short and compact. Heads are medium and tightly packed. Many large side shoots over long period. 70-85 days.

Brussels Sprouts

JADE CROSS. An F-1 hybrid, very widely adapted. Rich blue-green, firm sprouts are firmly packed in tight rows. 80-90 days.

LONG ISLAND IMPROVED (fr). Grows 20 inches tall or more. Sprouts about 1½ inches in diameter. Other strains of this are Catskill, Half Dwarf Improved. 90-100 days.

Cabbage

RESISTANT GOLDEN ACRE. Good quality heads, medium size, 4 to 5 lbs. each. Plants are short-stemmed, erect, uniform. Yellows-resistant. 64 days.

JERSEY QUEEN. Sweet, tender early cabbage. Plants are small, heads are conical. 62 days.

MARION MARKET. For early mid-season. Resembles Copenhagen Market but makes a larger plant. Heads almost round, 5½ to 7 lbs. each. Yellows-resistant. 75 days.

GLOBE. Mid-season. Large plants produce this 8-inch head, firm. Tips of outer leaves extend well above the head. Highly resistant to yellows. 90 days.

(Continued on page 22)

It Pays to Plant High-Quality, Disease-Resistant Varieties



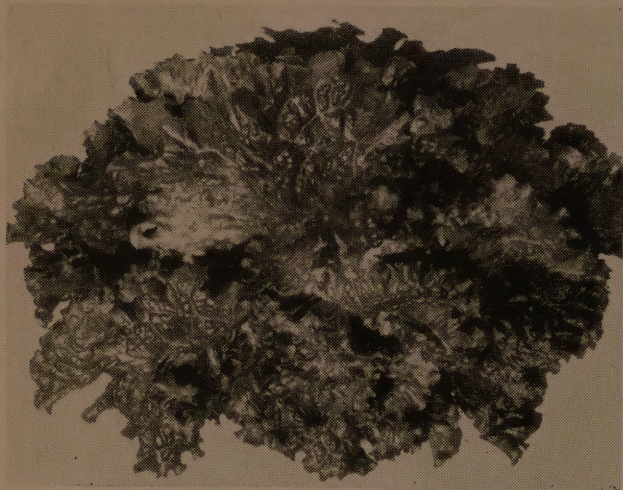
Be sure to consult the vegetable planting guide on page 19. It tells the amount of seed needed, proper spacing, depth to plant, time to plant, growing days, edible period and approximate yield.

Have you tried planting according to the phases of the moon? Lots of folks do . . . and with good results. Turn to page 30 for the 1963 moon phases.



Buy guaranteed-germination seed!





LETTUCE, Ruby



MUSTARD, Green Wave

COPENHAGEN MARKET. Very heavy yield, convenient size, early. Heads are well rounded, solid, of good quality, 4 to 4½ lbs. each. Tender white interior makes fine early kraut. 72 days.

Chinese Cabbage

MICHIHLI. A sure header, will remain in good condition for long time. Grows 18 inches tall, 3½ to 4 inches thick. Tender, crisp and sweet with a spicy flavor. 70 days.

Carrots

NANTES (fr). Wonderful for home garden. About 6½-inch root. Flesh is deep orange, tender and crisp. 70 days.

DANVERS HALF LONG (fr). Very productive. Roots 6-7 inches long. Fine for storing. 75 days.

RED CORED CHANTENANY. Highly productive. Short, 5½-inch root with distinctive stump end. Very sweet flesh, excellent keeper. 70 days.

GOLD SPIKE. Long, 7-9 inches, slender taper. Flesh is deep orange. Excellent shipper. 75-80 days.

IMPERATOR (fr). Long, slender, All-America winner. Slender, 8-9-inch roots, tapers to blunt end. Requires deep soil for best development. 77 days.

Muskmelons

BURPEE HYBRID. Very large, slightly oval, heavily netted. Fusarium wilt-resistant. Excellent quality, 7 inches long, 4 to 4¼ lbs. each. 82 days.

IROQUOIS. Large, musky flavored fruit, wilt resistant. Excellent quality. 85 days.

HARVEST QUEEN. Medium size, excellent quality, dependable cropper. Wilt resistant. 88 days.

DELICIOUS 51. Orange colored flesh, sweet, rich flavor. Wilt resistant. Rind is ribbed and coarsely netted. About 6 inches long. 84 days.

Cauliflower

EARLY SNOWBALL (fr). An old variety, still popular for home gardens. Plants are small to medium with large pale green leaves. Heads are compact, creamy-white, 6 inches or more in diameter, weight 1½ to 2 lbs. 60 days.

SNOWDRIFT. Good for main crop, longer harvest period. Suitable for commercial, home garden, processing. 56 days.

SUPER SNOWBALL (fr). Heads 6½ to 7 inches in diameter, compact. Widely used commercially. 60 days.

Celery

GOLDEN SELF-BLANCHING. Stalks and hearts are tender, crisp and free from strings. A widely grown, early yellow celery. 115 days.

GREEN PASCAL. There are several strains of Pascal. Leaf stalks are long, crisp, nearly stringless, and will blanch to white. 120 days.

CORNELL 19. A golden variety of Pascal. Grows best with moderately cool temperatures, good soil moisture and relatively high humidity. 120 days.

Sweet Corn

CARMELCROSS. A heavy yielding, second-early. Blocky ears, 7½ in. long, well filled with 10-14 rows of delicious yellow kernels. 80 days.

GOLDENCROSS BANTAM (fr). The standard hybrid for quality, and the most widely used for canning, freezing and home gardens. Usually 2 ears to each stalk, 7½ to 8½ inches long. Grows 6 to 7 ft. tall. 85 days.

NORTH STAR. A yellow hybrid with medium ears, good husk protection. Good quality though not wilt resistant. Extra early. 70 days.

SENECA CHIEF (fr). Excellent quality yellow hybrid. Ears 12 rows, 6-7 inches long. 85 days.

Cucumbers

BURPEE HYBRID. Slicing. Resistant to mosaic and downy mildew. Long, dark green, smooth, heavy yielder. 60-65 days.

ASHLEY. Slicing. Very dark green, tapering at ends. High yielding, downy mildew resistant. Crisp, tender. 65 days.

MARKETER. Slicing All-America winner, an extra fancy white-spined cucumber, 8 in. long, smooth, slightly tapered, dark green. Crispy flesh. Susceptible to downy mildew. 65 days.

OHIO MR-17. Pickling. Mosaic resistant, 7 in. long. Good size and shape for use all the way from small sweet pickles to large dills. High yielding. 57 days.

NATIONAL PICKLING. An old black-spined variety, still a favorite for pickling although it has no disease resistance. Well shaped, good quality, 6 in. long. 56 days.

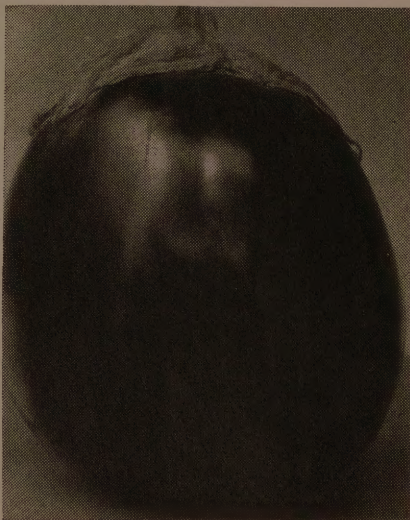
Eggplant

BLACK BEAUTY. Large, glossy, deep purple fruit is oval with blunt blossom end. Plants 2 ft. or more high, bear 4-6 fruits. 73 days.

BROCCOLI, De Cicco



EGGPLANT, Black Beauty



BURPEE HYBRID. Early, prolific, more resistant to drought and disease than most commercial varieties. Plants are tall, tree-like, vigorous, fruits held off ground. 70 days.

BLACK MAGIC. A hybrid. Earliest of the large, oval-fruited type, has relatively long harvest season. 75 days.

Lettuce

BLACK-SEEDED SIMPSON. Loose leaf, quick growing early variety. Extra fine quality. Has broad, light green frilled and crumpled outer leaves, center leaves blanch almost white. Brittle, crisp. 45 days.

GREAT LAKES. Very popular All-America winner, succeeds under many adverse conditions, is especially valuable as a summer variety because it stands up well in warm weather. Extra good quality, large heading. 90 days.

SALAD BOWL. Loose leaf, no heading, large, medium-green, slow bolting. Leaves resemble endive. Decidedly crisp and tender, resists heat well. 45 days.

BIBB. An old variety, still popular. Smooth deep green leaves are of excellent quality. Must be grown in cool weather as it bolts readily in hot weather. 60 days.

GRAND RAPIDS. Popular loose leaf, with intensely fringed and curled leaves. Abundance of young, tender leaves very early in season. 45 days.

PENNLAKE. Medium heading, very compact, medium green, uniform, heat-tolerant. 75 days.

Mustards

TENDERGREEN. Fast growing with large dark green leaves. Tastes like spinach. 35 days.

GREEN WAVE. Long standing, slow bolting. Broad dark green leaves are curled and frilled along edges. Heavy yielding. 42 days.

SOUTHERN GIANT CURLED. For spring or fall planting. Bright green leaves have mild flavor, are large and fringed. 40 days.

Okra

EMERALD (fr). Uniform, spineless. Plants 6-7 ft. tall; pods round, smooth, rich green. 55 days.

DWARF GREEN LONG POD. Ribbed, pointed, fleshy, dark green, 7-8 in. long. Plants grow 2-2½ ft. 52 days.

CLEMSON SPINELESS (fr). Dark green, slightly grooved, straight, pointed pods 7-9 in. long, without spines. 4 ft. plants. 56 days.

Onions

EBENEZER. Sets. Slow seeding, stores well. Flattened globe, heavy yielder. 105 days.

GOLDEN GLOBE. Sets. Fairly mild, good keeper. Well shaped, enormous cropper. 100 days.

SWEET SPANISH. Round, mild and sweet. An old favorite. Flesh is solid and crisp. Color varies with variety strain. 110 days.

EARLY YELLOW GLOBE. Mild flavor, produces beautiful globe-shaped, deep yellow skinned onions with clear white flesh. Good keeper. 100 days.

Parsley

MOSS CURLED. Very dark green, finely cut, closely curled leaves. Also called Double Curled, Triple Curled. 70 days.

PARAMOUNT. Uniformly curled with dark green leaves and tall, stout stems. 85 days.

Parsnips

HOLLOW CROWN. Long, tapered, fairly smooth and white. Flesh is fine-textured and tender. 105 days.

ALL AMERICAN. Flesh is white with small tender core and fine flavor. Roots are smooth, slender, almost white. 95 days.

Garden Peas

LITTLE MARVEL (fr). Heavy yielding. Dark green, nearly round, 3 in. long with 7 or 8 large green peas of delicious flavor. 63 days.

WANDO (fr). Most productive hot weather pea, also stands cold well. Dark green pods have 7 or 8 medium size peas of fine quality. Vigorous vines. 68 days.

FREEZONIAN (fr). Dark green blunt pods with 7 or 8 deep green tender peas. Excellent for freezing as skin does not peel or loosen. Very productive. 63 days.

ALDERMAN (fr). Tall dark podded telephone type. Good as main crop, has very large pods with up to 10 extra large sweet peas. Tall vines require support. Very productive over long bearing season. 74 days.

Sweet Peppers

CALIFORNIA WONDER (fr). Fruits 4-lobed, upright, little or no taper, thick walled, sweet. Plants vigorous, upright. Good stuffing. 75 days.

YOLO WONDER. Mosaic-resistant. Four lobed similar to California Wonder. Flesh is thick, firm, sweet. Dense foliage. 76 days.

WORLDBEATER. Heavy producer. Firm flesh of mild, sweet flavor; large fruits, uniform, 3 or 4 lobed, 5 in. long. Dark green, turning to deep red. 73 days.

VINEDALE. Extremely early, though the fruit is thin walled and not bell shaped. Good yielder. 60 days.

Hot Peppers

HUNGARIAN WAX. Waxy canary-yellow changing to bright red when ripe, 6-8 in. long. 65 days.

RED CAYENNE. 5 in. long, often curled and twisted. Easily dried. 72 days.

Pumpkins

SMALL SUGAR. New England pie type. Round, sweet, deep orange with thick yellow-orange flesh. Keeps well. 100 days.

JACK-O-LANTERN. Similar to Connecticut Field, excellent for Halloween carving. Skin is bright orange, firm. Medium large, round to elongated. 110 days.

Radishes

EARLY SCARLET GLOBE. Very early. Roots globe shaped; skin red, flesh white; tops medium vigor. 22 days.

CHERRY BELLE. Roots globe shaped; skin bright scarlet; white flesh; short tops. 23 days.

ICICLE. Very popular. Icy white, crisp, juicy. Roots 5 in. long. Remain firm long time. Best when used young. 28 days.

Spinach

BLOOMSDALE, LONG-STANDING (fr). Heavy yielder, delicious greens. Glossy dark green leaves, intensely crinkled, heavy textured. Spring or fall sowing. 48 days.

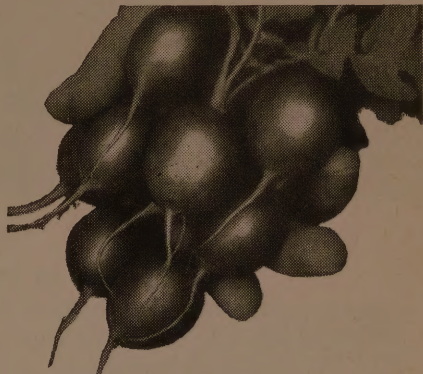
AMERICA (fr). Long standing, savoy leaf. Heavy yields. Plants grow 10 in. across, are slow to bolt. Leaves are glossy, thick, tender, crumpled. 50 days.

GIANT NOBEL. Largest and heaviest producer of all with thick, smooth, pointed green leaves. Succulent, crisp, tender, long standing. 45 days.

HYBRID NO. 7 (fr). Very large, semi-savoyed leaves. Upright habit. Resistant to downy mildew. Best sown in earliest spring. 42 days.

Squash

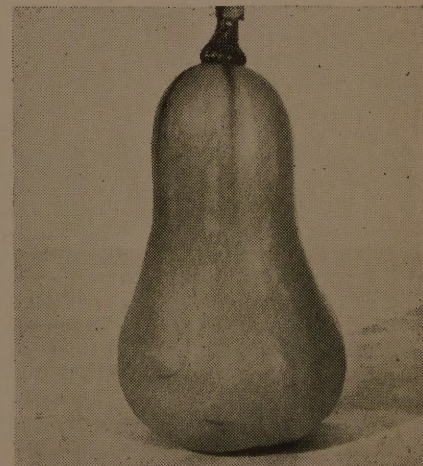
PROLIFIC STRAIGHTNECK (fr). Fruits are creamy yellow, edible from only 4 in. long to 14 in. long. Bushlike plants. 50 days.



RADISH, Early Scarlet Globe



TOMATO, Rutgers



SQUASH, Butternut



Cleanliness in the Garden

General cleanliness is most important in the garden. If faded flowers and dead or dying foliage and especially any diseased parts of plants (which should always be burned) are promptly removed, many potential sources of trouble will be eliminated. Make it a habit to remove dead and dying flower heads in your daily walk through the garden.

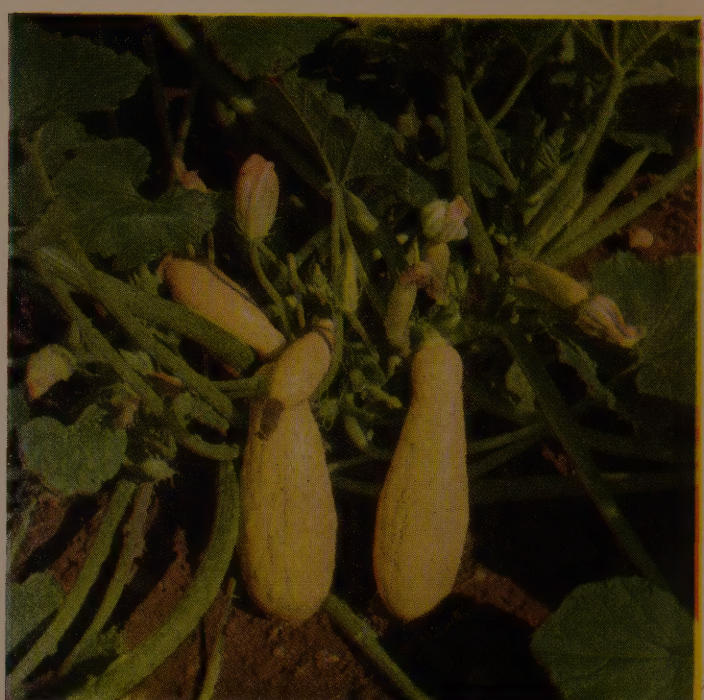
In case of attack by any insect or disease, control measure should be taken immediately. A day's delay may mean the difference between success or failure in the fight to save the plant.

The equipment for control in a small garden need not be expensive, but it should be the best of its kind and always kept clean and ready

for use. The modern multi-purpose materials for control, especially of insect pests, have been a great boon to the gardener.

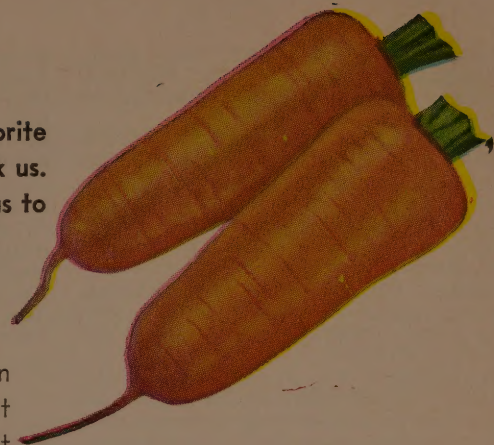
Mulches are useful in at least a half dozen ways: they conserve moisture in the soil; they keep the soil temperature lower in hot weather; they add humus to the soil as they disintegrate and in that way promote the development of beneficial bacteria and, most important of all—*they keep down weeds*. Many mulches, such as peat moss and buckwheat hulls provide a clean well-groomed appearance in the flower beds and borders.

Make it a rule to keep sprayers clean, tools sharp and use mulches frequently. Then your garden and your "gardenkeeping" can be fun.





Looking for an old favorite variety? Drop in and ask us. Space does not permit us to list all of them here.



Now you can keep weeds out of your vegetable garden without the back-breaking labor of past years. Ask us about the newest chemical weed killers and plastic coverings to get rid of weeds the easy way.

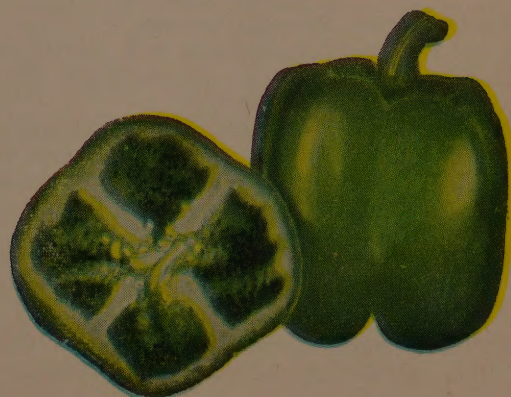
Insects are easily controlled in the vegetable garden. We have the latest insecticides, and the best sprayers and dusters available.



Plant early and late varieties for maximum harvest period. Come in and see our complete selection.



Varieties considered suitable for freezing are marked with "(fr.)" after the listing.



WHITE BUSH SCALLOP. Pale green changing to creamy white. Scalloped edges, milk-white flesh, delicious. 54 days.

COCOZELLE. Cylindrical, dark green fruits striped lighter green. 14 in. long, but best eaten when only 6-8 in. Greenish white, firm flesh. 60 days.

ZUCCHINI. Cylindrical smooth, deep blackish green with creamy white flesh. 60 days.

TABLE QUEEN (fr). Acorn-shaped, green, deeply furrowed flesh rich yellow, dry, mealy, delicious. Good for baking. 90 days.

BUTTERNUT. For fall and winter. Large, bottle shaped with smooth dark buff skin and hard shell. Flesh is orange, dry, fine textured, nutty flavor. Good keeper. Vines resistant to squash borer. 85 days.

Tomatoes

MORETON HYBRID. A second-early hybrid, usually producing a high, early yield. Fruit is considerably damaged by cracking and sunscald, but even so the early yield of sound fruit is high. Produces moderately good yield throughout the season. 70 days.

FIREBALL. Because it is vigorous, early, and has concentrated fruit settings, Fireball has performed well. Good size, smooth, globe shaped and unusually firm, mild flavor.

BIG BOY HYBRID. Good mid-season producer. Fruit is very large, perfectly smooth, deep globe to deep oblate in shape and very firm. Scarlet red color, thick walls, with bright red, meaty flesh of fine quality. Holds up well into late season. 78 days.

MANALUCIE. Late, disease-resistant, medium size. Fruits are round, thick-meat-ed, firm, deep scarlet with good flavor. Vigorous vines. Resistant to fusarium wilt, gray leaf spot and leaf mold. 90 days.

VALIANT. Distinct mild flavor. Large-fruited, early. Fruits deep globular, meaty. Plants are vigorous, medium size,

spreading and open habit of growth. Superior to old Earliana. 65 days.

GLAMOUR. Fine large, crack-resistant fruit. Heavy yielder with solid, mild flesh. Medium early to late.

RUTGERS. Main Crop. Tolerant to fusarium wilt. Fruits globular, smooth, bright red, thick walled; excellent quality. 86 days.

OTHERS you may want to try: Urbana, Tecumseh, Marglobe, Sunray, Cardinal Hybrid, Improved Garden State, Stokesdale, Pritchard, Queens, Mocross Sunrise.

Turnips

PURPLE TOP WHITE GLOBE. Flesh is firm, crisp, mild, white. Large sweet tops. Very popular. 55 days.

SHOGGIN. Very quick growing, 30 days to use foliage, 70 days for roots. Tops 18-20 in. tall, plentiful, tender, mild. Roots are 3-4 in. thick, flattened, globe shaped, white flesh.

SEVEN TOP. For turnip greens. Leaf shoots very tender. Roots inedible. Widely used. 45 days.

Watermelons

NEW HAMPSHIRE MIDGET. Melons oval, pale green with narrow stripes. Average 6 x 5 in. Delicious flesh is deep pink, sweet flavored. Thin rind. 70 days.

SUGAR BABY. Small, round ice-box variety, 8 in. diameter. Flesh is medium red, fine textured, sweet. Dark green, thin, hard rind. Excellent for home gardens. 75 days.

CHARLESTON GRAY. Fruit long, large, skin light gray. Heavy yielder. Anthracnose and wilt resistant, scald free. Excellent quality, bright red flesh. 85 days.

KECKLEY'S SWEET. Known as Wondermelon. Flesh is dark red, fine texture. Skin is dark glossy green. Up to 40 lbs. 88 days.

Herbs For Spice

Herbs are again becoming an important crop in many gardens. Originally they were grown because every home needed the flavorings, medicine, and perfume which the herb bed provided. Now that modern science has eliminated the necessity for these uses, the herbs are grown for beauty and choice flavorings.

When herbs were a necessity they were grown in beds or in a special garden. Herb gardens depended more on design for their effectiveness as most of the plants are green or grayish color with unattractive flowers. Some people are making small herb gardens or herb beds today.

Chives are an excellent low border plant. Attractive foliage is crowned with showy purple flowers in spring. The leaves are tasty in salads, cheese, and egg dishes. Sage is an interesting plant for the garden. The crinkled gray foliage is attractive, and the pale lavender flowers are interesting. The leaves are used in dressings.

Basil, marjoram, thyme, and rosemary are pleasing as border plants, while parsley is superb for edgings.

The method of drying is much the same for all the various herbs. Leaves and tender stems of balm, basil, borage, rosemary, sage, savory, fennel, marjoram, and thyme are cut in the young stage and dried slowly in a dustless, airy, darkened room. They may be tied in small bunches and hung head downward, or placed in roomy paper bags, and hung up.

FEEDING VEGETABLES

General Preparation of Soil: Broadcast manure 2 to 3 inches thick, dig in deep, or 1-2 inches compost or peatmoss, on spaded soil and dig in 3 to 4 inches deep. On poor soil add complete fertilizer broadcast 3 to 5 pounds per 100 square feet, and cultivate in. If soil is acid, broadcast lime as far in advance as possible.

ROOT CROPS

Beets, Carrots, Parsnips, Onions

At Planting: Broadcast 3 to 5 pounds complete fertilizer plus 3 pounds superphosphate. For onions, add wood ashes 10 to 12 lbs.

After thinning: 1st side dressing, nitrate of soda, 1 to 2 pounds. For onions repeat in 3 or 4 weeks.

When $\frac{2}{3}$ grown: 2nd side dressing, complete fertilizer 2 pounds.

VINE CROPS

Squash, Melons, Cucumbers

At planting: in holes (hills) manure or compost 2 or 3 shovelfuls, plus tankage or other organic fertilizer and superphosphate 3 or 4 trowelfuls. When well started—1st side dressing, complete fertilizer 3 pounds.

LEGUMES

Beans, Peas

At planting: Beans can readily be over-fertilized especially for nitrogen. Complete fertilizer, plus super phosphate, 3 pounds, well mixed with soil under rows. On rich soil, superphosphate only. Side dressing complete fertilizer 2 pounds, applied well out from rows. Peas.—lime, 3 to 5 pounds, when digging soil; manure and compost, plus complete fertilizer and a superphosphate, 2 to 3 pounds under seed bed.

When flower buds appear: 1st side dressing.

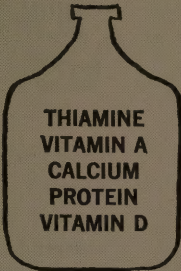
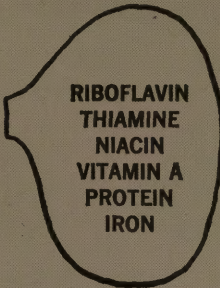
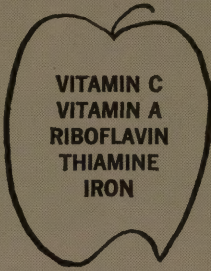
Beans—complete fertilizer 2 pounds well away from rows or hills.

Peas—nitrate of soda 1 to 2 pounds, when 6 inches high.

Sweet Corn—At planting complete fertilizer plus $\frac{1}{3}$ tankage 4 to 5 pounds per 100 feet of row, under seeds.

When 12 to 15 inches high: 1st side dressing complete fertilizer 2 to 3 pounds per 100 feet.

WEEKLY FAMILY FOOD CHECK-UP

FOOD GROUPS	MILK			MEAT			VEGETABLE-FRUIT			BREAD-CEREAL		
MAJOR NUTRIENTS SUPPLIED	 THIAMINE VITAMIN A CALCIUM PROTEIN VITAMIN D			 RIBOFLAVIN THIAMINE NIACIN VITAMIN A PROTEIN IRON			 VITAMIN C VITAMIN A RIBOFLAVIN THIAMINE IRON			 THIAMINE NIACIN RIBOFLAVIN IRON		
DAILY REQUIREMENTS*	FLUID MILK, PUDDINGS, CHEESE			MEAT, POULTRY, FISH, EGGS, LEGUMES			ONE CITRUS FRUIT AND ONE DARK GREEN VEGETABLE DAILY, AND ONE YELLOW VEGETABLE EVERY OTHER DAY			WHOLE GRAIN, ENRICHED, RESTORED		
	CHIL- DREN	TEENS	ADULTS	CHIL- DREN	TEENS	ADULTS	CHIL- DREN	TEENS	ADULTS	CHIL- DREN	TEENS	ADULTS
	3-4 cups	4 cups	2 cups	2 serv- ings (1-2 oz. ea.)	2 serv- ings (2-3 oz. ea.)	2 serv- ings (2-3 oz. ea.)	4 serv- ings	4 serv- ings	4 serv- ings	4 serv- ings	4 serv- ings	4 serv- ings
MONDAY												
TUESDAY												
WEDNESDAY												
THURSDAY												
FRIDAY												
SATURDAY												
SUNDAY												
CHECK APPROPRIATE BOXES EVERY DAY • BLANK BOXES SHOW NUTRITION SHORTAGES												
RECOMMENDED WEEKLY INTAKE	21-28 cups	28 cups	14 cups	14 serv-ings	14 serv-ings	14 serv-ings	28 serv-ings	28 serv-ings	28 serv-ings	28 serv-ings	28 serv-ings	28 serv-ings

*Based on recommended daily allowances of National Research Council of the National Institute of Health.

Is your family getting all the nutrition it needs? The chart above is designed to help you keep track of your family's proper nourishment in terms of vitamins and minerals. According to the National Vitamin Foundation, vegetables are necessary primarily for minerals and vitam-

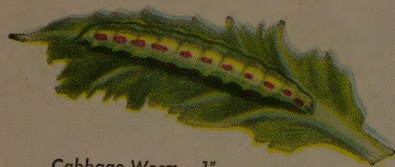
ins; citrus fruits along with leafy green vegetables (broccoli, spinach), tomatoes or green peppers are sources of vitamin C. Thiamine, riboflavin and niacin are growth essentials. These four vitamins are not stored by the body, but must be replenished daily.



Cutworm—1-3/4"



Tomato Hornworm—3" to 4"



Cabbage Worm—1"



Giant Slug—4" or more



Japanese Beetle—1/2"

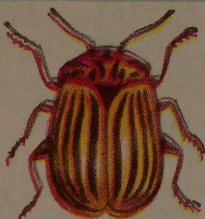


Mexican Bean Beetle—5/16"

PORTRAIT GALLERY OF GARDEN INSECTS



Asparagus Beetle—7/32"



Potato Beetle—3/8"



Potato Flea Beetle—1/16"



Bean Weevil—1/8"



Chinch Bug—3/16"



Tarnished Plant Bug—1/4"



Red Spider Mite—1/60"



Rose Chafer—3/8"



Beet Leafhopper—1/8"



Melon Aphid—3/32"



Bean Aphid—3/32"



Squash Bug—5/8"



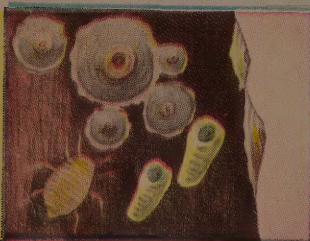
Sow Bug—1/2"



Mealy Bug—3/16"



Gladiolus Thrip—1/16"



San Jose Scale



Corn Earworm—2"



Oyster-shell Scale

NEW HELP for your battle with the BUGS

Ever since the first garden was planted, the fight between gardeners and insects has gone merrily along. But nowadays that fight is growing easier, year by year. Just reasonably good strategy is all the gardener needs to win.

A New Weapon

To make the job easier, we present here a highly valuable new anti-bug weapon. This is our series of natural color portraits of the common garden enemies, at the left. For the first time in any seed catalog, these pests are fully pictured in their exact coloring, so that you can recognize them at a glance.

To Beat Them—KNOW THEM!

These unique pictures have just one purpose—to help you identify the pests in your own garden.

Once you know exactly what insect you are fighting, the job is easy. There's a proper insecticide for every one of them.

That's where our new color pictures are so extremely useful. When you have one of these life-like portraits before you, identification is easier and more certain than ever.

Ask Us for the Remedy!

To link up each bug with the insecticide that will handle him. JUST ASK US.

We know from long experience, which formula is best for each situation—and we have it on hand, ready for you. So—with this weapon at hand, let's work together. You identify them! We'll prescribe for them. And from then on, Mr. Bug will have a pretty bad time of it.

PLANTING TOMATOES

Adequate soil preparation pays off in more and larger fruits although tomatoes succeed in most types of soil that don't remain overly wet. Where earliness is desirable, light soil will produce tomatoes more quickly. However, richer, well-prepared soil develops sturdier plants, higher yields, and quality fruit. The common factor to all kinds of soil—and the danger—is drainage; it must be good.

Use sufficient peatmoss to open the soil and assist in retaining a steady moisture content. You must not overwater tomatoes. The vines are unduly stimulated and the flowers drop off, and ripening fruit is left soft and mushy. Nor should you underwater tomatoes or water them irregularly. Maintain a continuous, even amount of soil moisture while tomatoes are in active growth. As soon as fruit commences, water less frequently and less heavily. Tomato fruits will then be solid and firm.

Tomatoes respond vigorously to both chemical fertilizer and manure. Both the yield and quality of their fruits are improved. The old custom of burying a shovelful of manure (if not dug in) eight or ten inches beneath each tomato plant is still a wise practice. Even in rich, well-manured soil tomato plants will benefit from a light application of a commercial fertilizer at the time of transplanting. Fertilize again when the small, immature fruits appear or immediately after the first harvest.

Tomatoes are side dressed differently from most other plants. Although placed in rows, side dressing may result in a waste since each plant is some distance apart. Dribble the fertilizer in a circle around each plant and about six inches away from the stem the first time; farther away the next time, nearly to the perimeter of the outer foliage.

Plant tomatoes deeply. For example, if the stem is six inches long, dig the planting hole three inches deep to cover that much of the stem. Wherever a tomato stem comes in contact with the soil, the health and vigor of each plant is increased.

Make a water basin around each tomato plant, work a teaspoonful of a commercial fertilizer into the soil, and water immediately. Don't wait until you've finished planting all of your tomatoes to do these tasks. Tomato roots must not dry out. Cover the soil with a few inches of a clean straw mulch, gradually building up the mulch and spreading it out as the plants grow.

There's an old controversy among gardeners: to stake or not to stake tomatoes? Should you

allow the plants to sprawl on the ground, train them on trellises, or tie them to individual stakes? Only you can solve that for yourself.

There's no question that staked or trellised tomatoes look better, are cleaner, can be planted more closely together, and generally produce larger fruits.

Also, where summers are likely to be on the cool side, staking does seem to induce earlier and better fruiting. A clean mulch, however, protects sprawling vines and low fruits and, where you have the room, effects considerable saving in time and labor.

To stake tomatoes, drive a strong pole (one to two inches square by six feet long) into the ground beside the base of each plant. Avoid injuring the roots by driving in the stakes before planting. As the tomato stems lengthen, tie them loosely to the stakes with a soft twine or raffia. To prevent the string from slipping, wrap it once around the stem and twice around the pole, then tie.

All staked tomatoes must be pruned. There are two ways of doing this. One is to prune severely, limiting each plant to one stem and pinching off the tips of side growths after they've developed two leaves. Severe pruning produces earlier and larger fruits—but smaller quantities. Unless you want tomatoes for competitive garden shows or have a very short growing season it is wiser to practice less severe pruning. Limit staked tomatoes to three stems per plant. Cut out sucker growths and pinch out side growths, leaving at least two leaves on them. Within reason, the more leaves that can be left on a tomato plant the more fruit will mature.

Tomatoes are attacked by more than thirty diseases and any or all parts — roots, stems, leaves, fruits—may be affected. But not all of them are found in any single region, and rarely in home gardens. All of the diseases are controllable by clean cultivation, rotation, seed disinfection, planting resistant strains, and regular dusting or spraying with a fungicide.

Most of the time you'll harvest tomatoes when they're dead ripe. The flavor is far superior. However, ripe fruit soon becomes soft and doesn't last. Green fruit, though, can be kept for some time. In late fall select mature green tomatoes, those that have finished their growth but haven't begun to color. Store them on shelves where you can keep the temperature down to fifty degrees Fahrenheit and the air very humid in order to prevent wilting.

♈ **ARIES:** Tends to dryness, barrenness. Fairly good for cultivating.

♉ **TAURUS:** Fairly productive. A good sign for planting root crops particularly potatoes and bulbs.

♊ **GEMINI:** Dry and barren. Not good for any kind of planting or transplanting. Kill noxious growths.

♋ **CANCER:** Moist, very fruitful, most productive of the Zodiac. Planting and transplanting should yield good crops. Irrigate, bud, graft, transplant.

♌ **LEO:** Most dry and barren sign. Use only to kill weeds, destroy roots.

♍ **VIRGO:** Moist but barren. Not recommended for planting or transplanting; good for cultivating.

♎ **LIBRA:** Fairly fruitful. Seed for hay, corn, fodder, etc. Produces vigorous pulp growth, reasonable amount of grain. Good for flowers.

♏ **SCORPIO:** Next to Cancer in productiveness. Irrigate but do not dig potatoes.

♐ **SAGITTARIUS:** Generally considered barren but used by many for onions, seeding for hay, destroying weeds, etc.

♑ **CAPRICORN:** Earthly, fairly productive. Similar to Taurus but drier. Bulbous flowers, potatoes, tubers, root crops.

♒ **AQUARIUS:** Somewhat barren. Good only for cultivation and extermination of pests.

♓ **PISCES:** Similar to Cancer so use for same purposes. Very productive.

Under each month, we show first the time at which the moon enters each SIGN (day of the month and hour of the day, Central Standard Time).

● **1st QUARTER, MOON INCREASING**—During 1st Quarter of Moon plant the following: Asparagus, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Celery, Corn, Cucumbers, Endive, Kohlrabi, Leeks, Lettuce, Spinach, Barley, Oats, Rye.

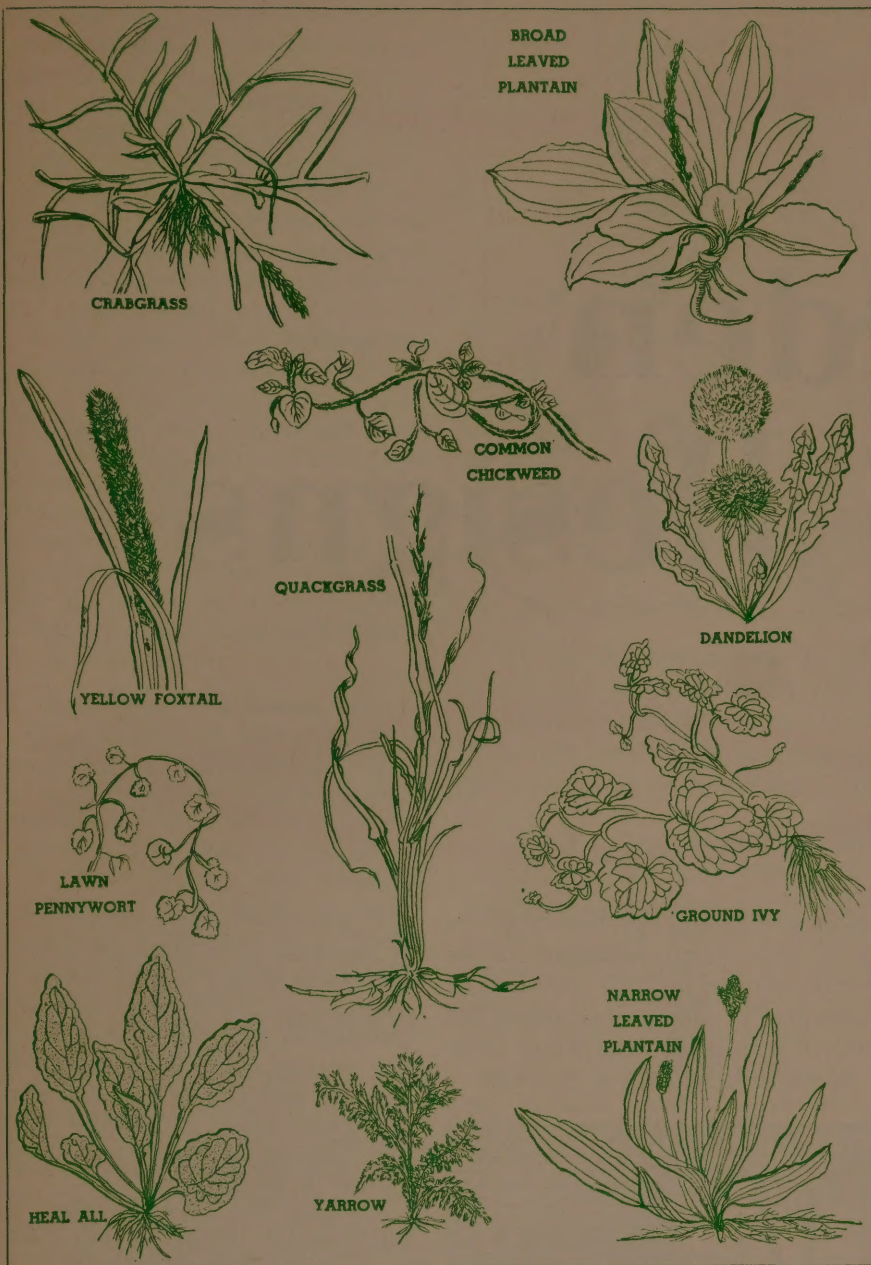
◐ **2nd QUARTER, MOON INCREASING**—During 2nd Quarter of Moon plant the following: Beans, Egg Plant, Melons, Peas, Peppers, Pumpkins, Squash, Tomatoes.

◑ **3rd QUARTER, MOON DECREASING**—During 3rd Quarter of Moon plant the following: Beets, Carrots, Chicory, Parsnips, Potatoes, Radishes, Rutabagas, Onions, etc.

☾ **4th QUARTER, MOON DECREASING**—In the 4th or Last Quarter of the Moon turn sod, pull weeds, and destroy noxious growths.

1963 Moon Phases

JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
1 ♀.10:48p	2 ♀.10:05a	1 ♀.3:43p	2 ♀.8:48a	2 ♀.0:15a	3 ♀.6:38a
4 ♂.1:34a	4 ☾.2:43p	3 ☾.8:12p	4 ♀.6:23p	4 ☾.11:44a	5 ♀.7:00p
6 ♀.4:07a	6 ♀.9:07p	6 ♀.3:18a	7 ☾.5:50a	7 ♀.0:16a	8 ♀.6:07a
8 ☾.7:43a	9 ♀.5:35a	8 ♀.0:36p	9 ♀.6:14p	9 ♀.0:42p	10 ☾.3:22p
10 ♀.1:05p	11 ☾.4:21p	10 ☾.11:37p	12 ♀.6:48a	12 ♀.0:12a	12 ☾.10:20p
12 ♀.9:11p	14 ♀.4:39a	13 ♀.11:52a	14 ♀.6:25p	14 ☾.9:49a	15 ♀.2:46a
15 ☾.8:05a	16 ♀.4:55p	16 ♀.0:26a	17 ☾.3:33a	16 ☾.4:27p	17 ♀.4:54a
17 ♀.8:35p	19 ♀.2:58a	18 ♀.11:32a	19 ☾.8:52a	18 ♀.7:44p	19 ♀.5:44a
20 ♀.8:19a	21 ☾.9:21a	20 ☾.7:14p	21 ♀.10:28a	20 ♀.8:20p	21 ☾.6:47a
22 ♀.5:19p	23 ☾.0:15p	22 ☾.11:00p	23 ♀.9:52a	22 ♀.7:56p	23 ♀.9:46a
24 ☾.11:11p	25 ♀.1:06p	24 ♀.11:36p	25 ♀.9:09a	24 ☾.8:34p	25 ♀.3:58p
27 ☾.2:34a	27 ♀.1:41p	26 ♀.10:58p	27 ☾.10:32a	27 ♀.0:04a	28 ☾.1:42a
29 ♀.4:38a		28 ♀.11:17p	29 ♀.3:31p	29 ♀.7:23a	30 ♀.1:48p
31 ♀.6:56a		31 ☾.2:17a		31 ☾.6:12p	
Changes	Changes	Changes	Changes	Changes	Changes
2 ♀.7:02p	1 ♀.2:50a	2 ♀.11:18a	8 ♀.6:57p	8 ♀.11:24a	7 ♀.2:32a
9 ☾.5:09p	8 ☾.8:52a	10 ☾.1:49a	16 ☾.8:53p	16 ☾.7:37a	14 ☾.2:54p
17 ☾.2:35p	16 ☾.11:39a	18 ☾.6:02a	23 ☾.2:29p	22 ☾.10:00p	21 ☾.5:42a
25 ☾.7:42a	23 ☾.8:06p	25 ☾.6:10a	30 ♀.9:10a	29 ♀.10:56p	28 ♀.2:26p
		31 ♀.9:15p			
JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
3 ♀.2:11a	1 ♀.9:12p	2 ☾.7:34p	2 ♀.8:05a	2 ♀.5:48p	2 ☾.4:45a
5 ♀.1:03p	4 ☾.5:26a	4 ♀.9:51p	4 ♀.7:50a	4 ☾.6:12p	4 ♀.6:21a
7 ☾.9:36p	6 ☾.10:45a	6 ♀.11:04p	6 ♀.8:00a	6 ♀.9:25p	6 ♀.11:30a
10 ☾.3:53a	8 ♀.2:07p	9 ♀.0:49a	8 ☾.10:04a	9 ♀.4:15a	8 ☾.8:25p
12 ♀.8:16a	10 ♀.4:38p	11 ☾.4:09a	10 ♀.2:58p	11 ☾.2:09p	11 ♀.8:05a
14 ♀.11:15a	12 ♀.7:16p	13 ♀.9:31a	12 ♀.10:38p	14 ♀.1:58a	13 ♀.8:54p
16 ♀.1:28p	14 ☾.10:40p	15 ♀.4:51p	15 ☾.8:29a	16 ♀.2:40p	16 ♀.9:21a
18 ☾.3:45p	17 ☾.3:18a	18 ☾.2:02a	17 ♀.7:54p	19 ♀.3:23a	18 ☾.8:27p
20 ♀.7:16p	19 ♀.9:42a	20 ♀.1:12p	20 ♀.8:33a	21 ☾.2:51p	21 ☾.5:28a
23 ♀.1:08a	21 ☾.6:26p	23 ♀.1:50a	22 ♀.9:19p	23 ☾.11:31p	23 ♀.11:41a
25 ☾.10:04a	24 ♀.5:39a	25 ♀.2:12p	25 ☾.8:18a	26 ♀.4:25a	25 ♀.2:55p
27 ♀.9:39p	26 ♀.6:16p	28 ☾.0:00a	27 ☾.3:30p	28 ♀.5:50a	27 ♀.3:57p
30 ♀.10:08a	29 ♀.5:58a	30 ☾.5:47a	29 ♀.6:35p	30 ♀.5:15a	29 ☾.4:09p
	31 ☾.2:37p		31 ♀.6:41p		31 ♀.5:10p
Changes	Changes	Changes	Changes	Changes	Changes
6 ☾.3:57p	5 ☾.3:31a	3 ☾.1:34p	2 ☾.10:45p	1 ☾.7:56a	7 ☾.3:36a
13 ☾.7:58p	12 ☾.0:23a	10 ☾.5:43a	9 ☾.1:30p	8 ☾.0:39a	15 ☾.8:07p
20 ☾.2:45p	19 ☾.1:36a	17 ☾.2:53p	17 ☾.6:44a	16 ☾.0:52a	23 ♀.1:55p
28 ♀.7:14a	27 ♀.0:55a	25 ♀.6:39p	25 ♀.11:20a	24 ♀.1:56a	30 ☾.5:05a
				30 ☾.5:55p	



Eleven Common Lawn Weeds

Weeds are grass robbers since their root systems thrust laterally through the grass roots and steal moisture and valuable mineral salts needed by your lawn to insure hardy growth. Some weeds send out runners on the surface which take root, form new plants and proceed to take food from the grass, stunting it, shading newly germinated grass and ultimately discouraging growth. Tap roots, the central roots, are weed storage plants from which the lateral root system draws its reserve strength. Some weeds can be killed by merely spraying weed killing chemicals on the leaves; others re-

quire chemical injection at the tap root. Modern chemical weed killers are selective and formulated to do a specific job.

Successful weed removal means getting them early—before the flowering stage, go after them in the spring or early summer. Weeds should be two or more inches high before spraying however, otherwise the leaf is not broad enough to fully absorb the chemical and the tap root will revitalize them.

Dandelions can be easily controlled with our selected weed killers. Their root systems are comparatively sim-

ple and being a medium-broad leaved plant the chemical has freedom to work quickly and effectively. It has been found that some regrowth of dandelions will occur if they are treated when the turf in general is suffering from drought. Lawn weeds are best gotten when they are green and growing actively. Other weeds which can be as effectively controlled as dandelions are Common Plantain, Common Chickweed, Ground Ivy and Pennyworth.

Tell us the weed you are going after, and we'll prescribe the remedy!

Garden Designs

With the advent of prefabricated glass houses and the new inexpensive plastic materials, the pleasures of all year round gardening are in the reach of nearly everyone. The enclosures can be built attached to your house or garage or can be free-standing. It pays to investigate the materials available and discover that you can grow everything from Bibb lettuce out-of-season to exotic colorful plants such as orchids.



IF you don't have much room or much time there are several factors to be taken into consideration. First you'll want continuous bloom starting with bulbs in the spring, and perennials with annuals selected by size and color to follow after, continuing until the chrysanthemums and asters bloom in the fall.

Choose the largest for the background. Start in the early spring with bulbs planted in the fall—**jonquils**, **crocus** and all the bright little early bloomers. Then **peonies**, whose foliage will stay lush and green throughout the summer. **Iris** which will bloom at the same time, followed by **alysum saxatile** and **candytuft**. Follow these by somewhat later perennials such as **delphinium**, **penstemon** or **tritoma** and the quickest annuals like **alysum** and **annual candytuft** and **petunias**, (preferably started early indoors.) Then come the **zinnias** and other mid-summer annual bloomers.

This succession of bloom is planned by the kind of flowers

you grow and by the time you start the seeds. Some flowers, like **asters** or **cosmos** come into bloom when they are subjected to a certain amount of sunshine, and early planting will not hurry the blooms, although it does encourage larger plants and more flowers when they do bloom. Others are indifferent to day length and will bloom whenever the plants are large enough.

Some plants like **snapdragon**, **alyssum** and **petunia** profit from very heavy pruning after the plants have passed their peak, for they will then make a fresh new plant and go through another blooming cycle. In the case of **petunias** it is good practice to cut back a few plants while others are left in bloom in order to have fresh growth coming along steadily for the future.

Accenting the House Line

The magic of color finds no more delightful expression than in annual flowers especially when the floral colors are selected for harmony with their surroundings.

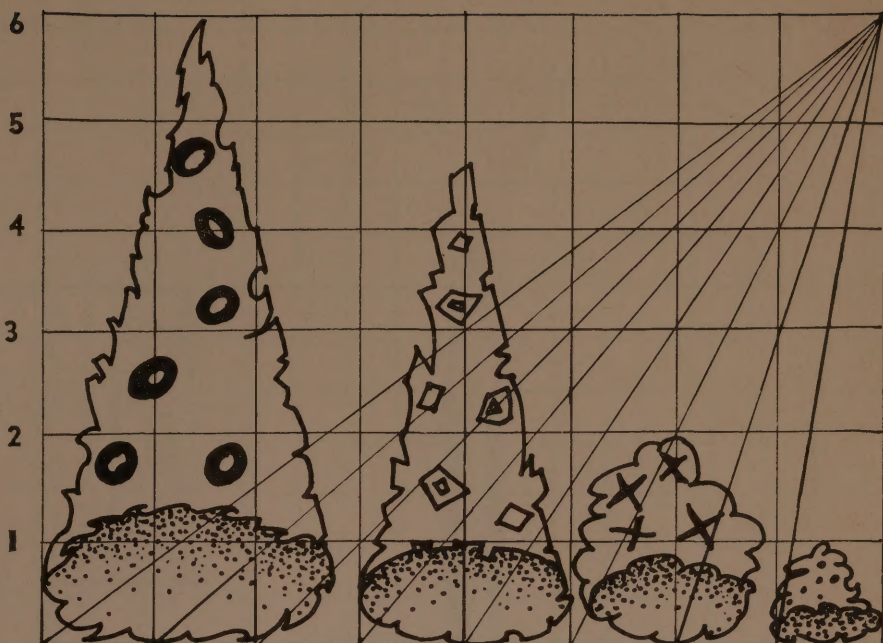
Near a house, for example, flowers can add greatly to its appearance if their color complements the house, and the flowers are grown in a suitable location, such as a corner where two walls meet.

Here flowers will break the harsh lines where walls meet the ground, quite as well as shrubbery or evergreens, and their color will add a decorative note. Annual flowers will never grow tall enough to make a low house seem lower or to obscure the view from a window.

Annual **anchusa** planted in the corner will grow two feet tall and bear dark blue flowers, resembling forget-me-nots. **Cynoglossum**, which has similar flowers with a longer flowering season may be used instead of **anchusa**.

White single **asters**, and pink **petunias** are placed in front of the tall blue forget-me-not flowers and on the edge of the bed are **alyssum** Violet Queen and the beautiful annual **pinks**.

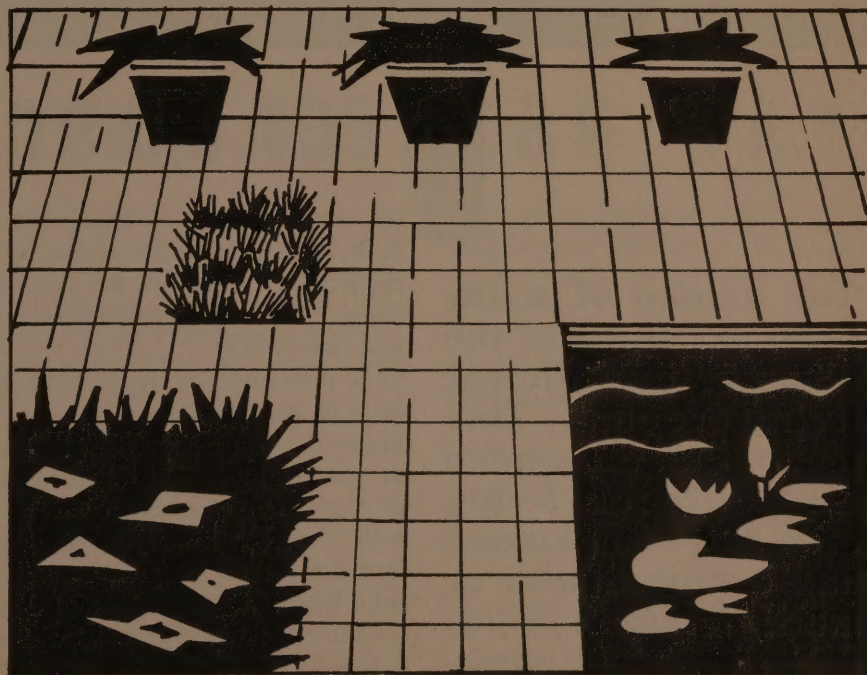
A bed like this will be a joy all summer long. It will take little care beyond watering and keeping the faded flowers removed.

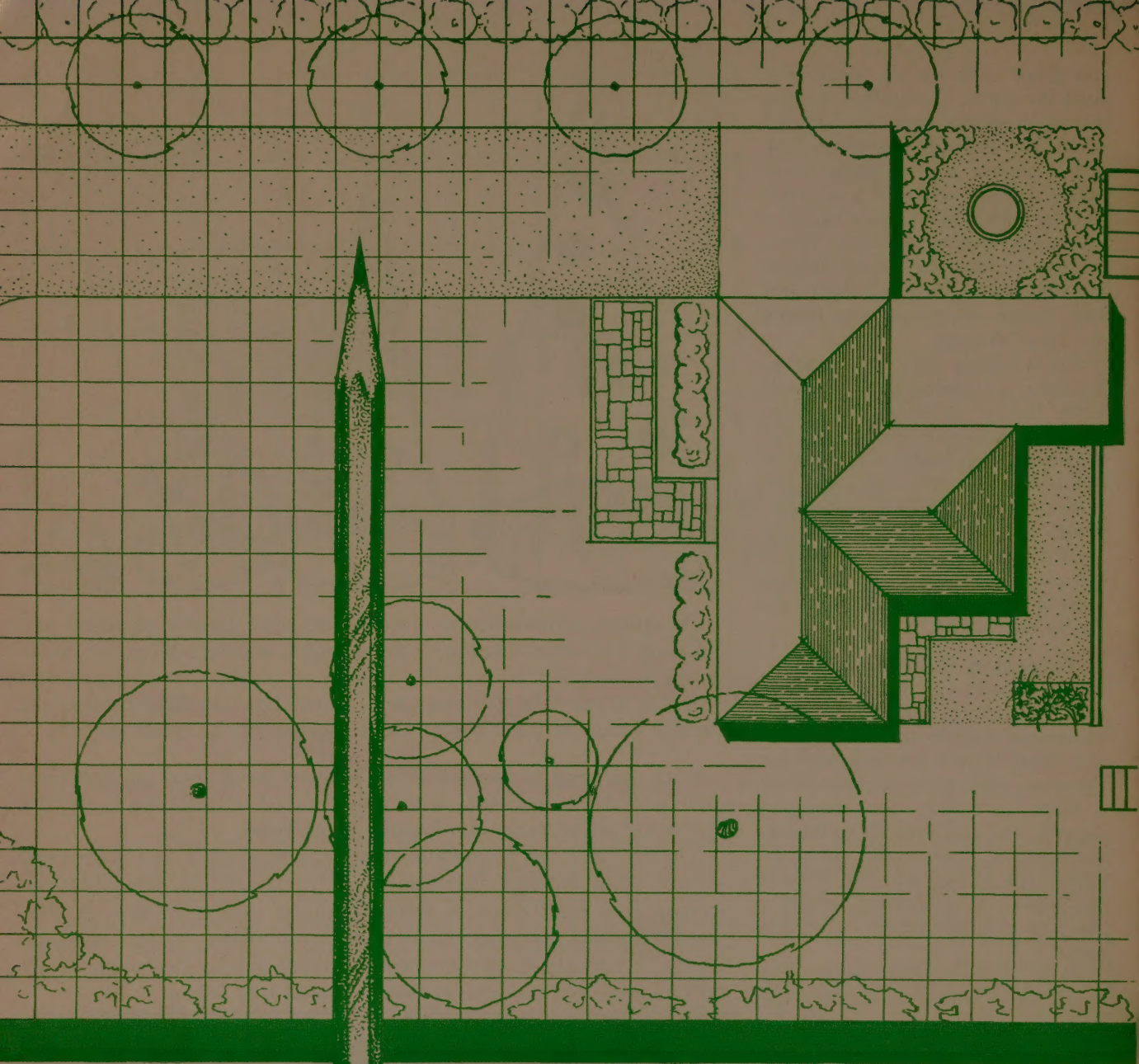


Of utmost importance in good garden and border planting and planning is to remember the ultimate height, and breadth of the flower or shrub. Keeping in mind the amount of sunshine needed and surrounding areas. The drawing above shows how the light reaches the various forms of plantings at the staggered size of their growth.

With the trend to outdoor living, outdoor living areas are becoming more and more important with either paved or lawn areas, various gardening projects can very happily be included.

The fish pool can be used for water plants, cattails, water lilies and certain small areas of the terrace can be planted in jewel like perfection. It is usually best to plant one flower variety in each of these areas. Tubs and pots planted and brought into bloom in other areas, can always be brought in at their peak to accent any outdoor spot. As one group fades, it can be removed and replaced with others.





The garden of today is an extension of the home or an "outdoor living room." This means that the garden and outdoor living area must be planned and arranged with as much forethought as designing your home.

LANDSCAPE YOUR

We want our outdoor living room to be clean, uncluttered and attractive as well as to achieve more effective garden-keeping with less work.

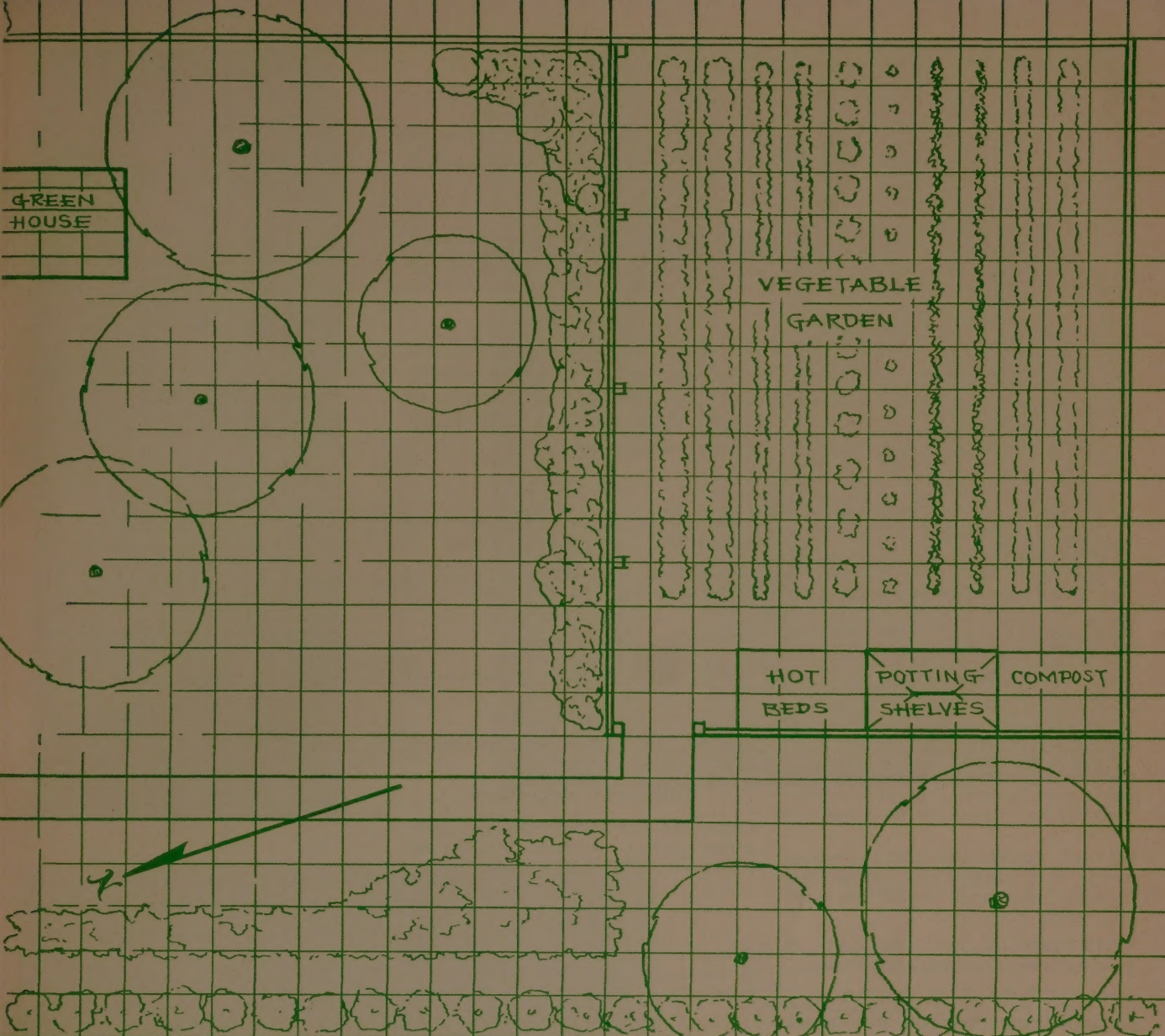
This planning—or replanning is done in several steps.

First—the house should be tied to the garden by doors and terraces. Develop your overall garden plan with different areas which flow into each other rather than being split with hedges, paths and disconnected flower garden which mean more work for the gardener.

You'll want your terrace to be private and protected for leisure living so plant screens of flowering shrubs or hedges—or fencing, if your budget can stand it—on your property line.

Remember that an open lawn is beautiful to look at—and easy to mow.

Overplanting of small home grounds with trees and shrubs is the most common error that can be made. In a few years these plants may interfere not only with the recreational use of the



PROPERTY THE MODERN WAY

grounds, but by competition for light and root area, they may destroy flower and vegetable gardens and eventually destroy themselves.

You'll want your vegetable garden near the kitchen, where garden-fresh vegetables can be harvested, then cooked before their flavor is lost.

Take your family's interests into consideration when you plan.

A children's play area, space for a badminton court or other similar needs have to be considered in planning.

Garbage clutter can be hidden by a "baffle" made by centering a wood strip on brick wall along your garage. Space wooden poles along the strip and set out hardy vines where they can climb poles of the "baffle."

Upkeep is an important consideration, especially in the areas that get the most wear. In such places, concrete, blacktop or other hard surfacing may be more practical than grass. Avoid odd-shaped grass areas where hand trimming will be required. Also avoid flowers, shrubs or trees that require

special protection from diseases.

Design your garden with color . . . use effective combinations of perennials and annuals . . . vines and other planting material which you'll find in our catalog.

Take an idea, or a group of ideas, fit them together as you like. It's a quick effective way to better the looks of your home.

Here in our Garden Annual are color combinations, suggested garden plans and ideas all designed to make your "outdoor living room" a welcome spot for your family and friends.

Bulbs and Tubers

We especially recommend these carefully selected varieties of bulbs and tubers for spring planting. Every one is a good investment that will pay dividends in beauty year after year and multiply in value. Plant them for a beautiful, colorful summer.

Dahlias

(I.D.: Informal Decorative.

F.D.: Formal Decorative.)

A. D. LIVONI—(Show Type) Beautiful shade of deep pink, flowering variety.

ARTHUR GODFREY—(F. D.) Flame red with orange-buff shadings. Large.

AVALON—(F. D.) A fine garden variety. Rich large lemon-yellow blooms.

BLACK MONARCH—Very dark, oxblood red. A strong grower with many blooms. Long, sturdy stems make this a fine cut-flower.

CITY OF CLEVELAND (F.D.)—Glowing orange with suffusions of red showing through. The formal flowers are borne on a strong sturdy bush.

COMMANDO—(F. D.) Clear shade of deep lavender. One of the finest colors.

GALLANT FOX—(F. D.) Brilliant red.

GOLDEN TREASURE (F. D.)—Golden yellow, large flowering.

JANE COWL—(I. D.) Lovely buff and old gold shading to a salmon center. Massive.

JERSEY'S BEAUTY—(F. D.) Glorious clear pink. One of the finest flowers.

KINDIG PURPLE (F. D.)—A wonderful plant with deep green foliage setting off the richness of the giant deep purple flower.

MICHIGAN WHITE—Clear white. A beautiful cutting variety with 6 inch blooms.

MRS. GEO. LE BOUTELLIERE (I. D.)—Deep rich carmine red. Very attractive.

MRS. I. DE VER WARNER—(F. D.) A beautiful orchid pink. Lovely flowers.

MRS. THOMAS EDISON (I. D.)—Dark claret red on a medium low bush.

ROSY DAWN (Ball Type)—Rose red and yellow. Fine for cut flower.

ROYAL PENNANT (I. D.)—Rich royal purple with eight inch blooms.

SALEM SUNSHINE (I. D.)—Primrose yellow blooms, measuring up to 10 inches across.

POMPON DAHLIAS—Charming "button" dahlias that require little care.

MINIATURE DAHLIAS—Lovely 3 to 4 inch blossoms just like the larger.

Caladium

FANCY - LEAVED—Rich ornamental leaves marked, veined white, pink and red. Nice in pots or shady places.

ELEPHANT'S EAR—Huge green leaves.

Tuberous Begonias

CAMELLIA-FLOWERED—Scarlet, pink, yellow, salmon, and white. Top size and top quality. Plant in semi-shade.

Lilies

Few flowers provide such regal beauty as lilies, and few are as hardy. Let us suggest the varieties that will thrive best.

Tuberoses

One of the most fragrant of all flowers. Tall spikes of white blooms. Long lasting.

CANNAS

Apricot—Large shell pink flowers; green foliage; extremely dwarf.

President—Immense bright red flowers in large clusters. Green foliage. Height 4 feet.

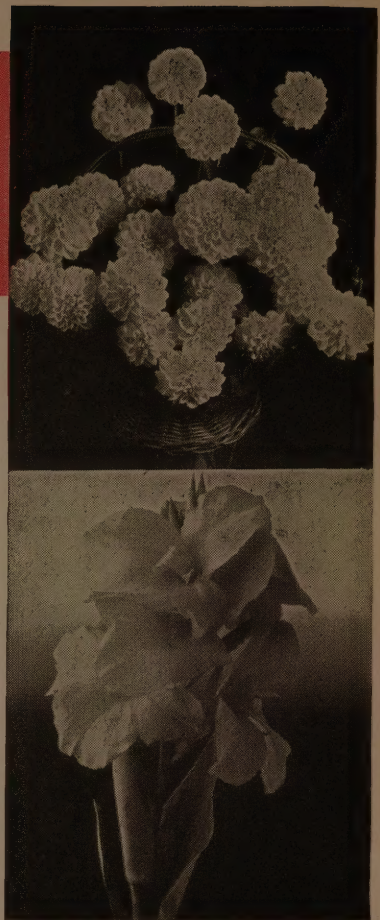
Richard Wallace—Beautiful large clear light yellow flowers, green foliage; dwarf.

Red King Humbert—Large light red flowers; bronze foliage; medium tall.

GLADIOLI

APPLE BLOSSOM—A beautiful white with lushly suffused rich pink petal margins. 1956 AAGS.

BEN HUR—1962 AAGS. Soft, harmonious, medium shade of rose-pink. Fancy ruffling.



CARIBBEAN — Blue-violet throat and small cream spear. 1957 AAGS.

CHINA BLUE—Light violet-blue. 1961 AAGS.

COL. W. C. ATKINSON—80 to 85 days. Excellent lavender of a deeper shade than any other lavender variety.

ELIZABETH THE QUEEN—Large mauve-ruffled flowers with dark lines in the throat. The best beautiful lavender.

ELMER'S ROSE—85 days. Deep rose, heavily ruffled. Opens 7 to 8 well placed blooms on a 20 bud spike.

EMPEROR—A robust grower, royal purple with light throat. A rich, distinctive color. Makes majestic spikes that grow very tall. AAGS 1958.

FLORENCE NIGHTINGALE — Crystal clear white shading into a light cream throat. Opens up to 8 beautifully ruffled florets on a well balanced flowerhead.

FRIENDSHIP—A superbly colored soft light pink, blending to a cream throat. Opens 6 to 8 ruffled florets on a straight medium height spike. Excellent placement, and one of the earliest to bloom.

FRISKY. Lively little glad. Opens 7-8 deep scarlet florets on straight, slender spikes. Essentially a small glad, but may have one or two florets slightly oversize if too well grown. AAGS 1963.

**RIGHT. GOLDBLOCKS, All-America
miniature gladiolus, 1963.**

GOLDBLOCKS. A little glad. Lovely golden color, beautiful, waxy sculptured form and fine growing habits. Ideal for gay arrangements. AAGS 1963.

GYPSY DANCER—Orange with char-
treuse throat, heavily ruffled. 1961 AAGS.

HORIZON—1962 AAGS. Pure rose laven-
der color with large recurved florets.

JOYOUS—Medium rose, lighter in the
throat. Large size with a crisp, ruffled
formal spike. AAGS 1959.

LANDMARK—Huge, tall, cream-colored
with lovely ruffled florets. 1960 AAGS.

LEADING LADY—Cream white. Very
large florets on tall spikes.

LEEUWENHORST—Huge flowers of light
rose tinted lavender. One of the strong-
est growers and largest flowers.

LITTLE PANSY—A petite and charming
little gladiolus of rich, velvety, deep blue.
Pansy-like blotches make it a study in
contrasts.

MARGARET BEATON — Huge snowy
white flowers with a small red blotch
deep in throat.

MAYTIME—A real stunning pink with
white throat. Delightful for arrange-
ments. Ruffled and healthy. Remarkably
easy to grow. AAGS 1957.

MORNING SUN. A glorious, bright deep
yellow. Majestically tall, having up to
22 buds. Color is intense and smooth.
AAGS 1963.



**LEFT. FRISKY, All-America miniature
gladiolus, 1963.**



ORANGE GOLD—Clear orange self color.
Opens up 6 well placed florets on a tall
spike.

PROSPECTOR—Light yellow with beau-
tiful amber lip.

RED CHARM—One of the finest medium
reds, opening 8 to 9 large well placed
florets on tall straight stem.

ROYAL STEWART—A clear light red,
lightly ruffled. 1956 AAGS.

RUSTY—Chocolately smoky red with
fluted, suede-textured florets. 1961 AAGS.

SANS SOUCI—85 days. Tall, strong clear
scarlet with a narrow white line on the
lower petal. Seven to eight five inch
blooms open at once.

SHERWOOD—Beautiful ruffled deep pur-
ple with darker blotch in the throat. Tall
grower.

SNOW PRINCESS—Tall white with long
flower spike and many open blooms that
are always perfectly placed. Mid-season.

SPARKLER—"Butterfly" informal type,
pale yellow with a scarlet throat. Medium
size. AAGS 1959.

THUNDERBIRD—1962 AAGS. Firey, vi-
brant deep persimmon of heavy substance
and exquisite ruffling.

YELLOW HERALD—Amber yellow with
carmine in throat.

VICTORY. A brilliant new scarlet. Opens
8-10 saucerlike, glowing scarlet florets at
one time. Lofty spikes of precision-like
build. AAGS 1963.



IT'S THE EARLY BIRD

Some weeks of garden beauty can be added by early plants when you start annuals in the house before freezing weather is over. The greatest gain in added beauty and color comes from flowers that grow slowly, taking as long as ninety days to bloom from seed. Most popular of these are petunias, snapdragons and asters. All the seed sown in boxes can be made to produce plants by transplanting the seedlings to other boxes while they are tiny. Each plant can then be exactly where it is needed more easily and accurately than where seed is sown direct. The boxes, too, can be more conveniently watered when necessary.

THE BIG SEASON

Planning color in your garden for mid-season bloom could include **Balsam, Celosia, Centaurea, Cynoglossum, Gerbera, Gomphrena, Gypsophila, Heliotrope, Larkspur, Lavatera, Lupine, Pansy, Petunia, Phlox (annual), Schizanthus, Sweet Pea.** These flowers will bloom starting in June and continue in a riot of color through September. To keep them blooming, though, cut off flower heads to keep from going to seed and apply plenty of water.

Except for the slower germinating varieties, these can all be planted directly in the flower garden.

You can lengthen the season of bloom and make your garden a lovely spot during the hot summer months by carefully choosing colors from the wide selection of annuals.

PLANT LATE TOO

From mid-summer to frost, the most lavish display of colors come from annuals which are planted directly to the flower bed and, in some cases, successive plantings are made. For long bloom, be sure and cut off flower heads to prevent going to seed.

The choice for distinctive color of these long blooming flowers is wide. They include **Ageratum, Alyssum, Anchusa (annual), Antirrhinum (Snapdragon), Asters, Calendula, Calliopsis, Candytuft (annual), Clarkia, Cosmos, Dianthus (annual), Didiscus, Four O'Clock, Gaillardia, Godetia, Hunnemannia, Linum, Lobelia, Marigold, Mignonette, Nasturtium, Nicotiana, Portulaca, Salvia Scabiosa, Sunflower, Verbena, Vinca, and Zinnia.**

For beautiful Hollyhocks and Pansies, treat them as biennials. The plants are larger and the flowers more abundant if they are started in late summer and wintered over.



Get a head start on spring! Fill a shallow box with equal parts of sand, soil and peat moss or vermiculite. Sow seeds uniformly thick and cover with newspaper or glass. Keep moist. Thin and transplant when 2nd leaves appear.



Lovely midseason bloomers such as the Bells of Ireland (above) can either be started inside in a seed box or planted directly to the garden when the ground has warmed up. Some gardeners sow both ways for a succession of bloom all season.



Look ahead a season and start in the fall to grow plants of biennials and perennials which will be in their full glory next summer. The carnation shown above needs good winter protection to avoid kill, but it is most rewarding.



If petunia plants are started early indoors you can expect a spectacular show for several months. Petunias require little or no attention and go right on with their steady display of beauty. If you want a tremendous color range and fancy flowers as well, try Carnival Petunia, pictured above. As many as 20 different colors with many wavy, ruffled and fringed blooms.



Another reward for starting seed early indoors is the new annual Sweet William, Wee Willie. This new and delightfully different strain is ultra dwarf and compact in habit, making it ideal for use as an edging plant. The single flowers, which are about $\frac{3}{4}$ inch in diameter, are selfed, zoned and edged in gay combinations of crimson, ruby, deep rose pink and white. Plant is compact 4-6".



Marigolds and Zinnias are two of our most popular mid-season bloomers, going right into fall. These are really "Floral Twosomes"—they require about the same soil and climate and bloom about the same time—and they're both easy to grow, you can plant directly to the garden or start early indoors for longer show. Crackerjack Marigold, above, is a favorite variety.



Tom Thumb Zinnia (above) is a worthy companion to the Marigolds. You don't have to be in a hurry to get zinnias planted and don't bother to give them much in the way of fertilizer (they'll go to leaf if you do). When watering, let the hose run around the base of the plants. They can stand any amount of hot weather as long as there is a bit of moisture around the roots.



Little Queen Aster is a new dwarf Aster that has been bred from the famous Queen of the Market strain. Its dwarfness is in the plant as the flowers are good sized. The plants grow only 12 inches high and is most compact. The flowers are $2\frac{1}{2}$ inches to 3 inches across. They literally cover the plants in lovely Aster colors of red, white, light blue, dark blue and rose.



Blooming in late August and September, Stella Polaris is a brand new variety of Blazing Star. This California wild-flower has star-shaped blooms 3 to 4 inches across.

AND REPLANT



Grass doesn't need pampering

**OUR LAWN SEED DEPARTMENT
OFFERS THE VERY BEST LAWN SEED
TESTED WEED CONTROLS
THE PROPER LAWN FOOD
EXPERT ADVICE**

As a service to our customers we will make to your specifications any special mixture of grasses, or match any formula you may wish. Our specialists will, on request, make recommendations of a suitable formula to fit any special conditions you may have. This service also includes proper fertilizer recommendations. Come see us soon!

Lawn building used to be the most strenuous task the home owner faced. Not only was building the lawn a difficult undertaking, but maintaining a lawn was a never ending project.

In the past few years chemical weed killers, power mowers, improved seed, better plant foods have been developed to make better lawns with less expenditure of time, work and money. Here at our store you'll get the best supplies to building and maintaining a beautiful lawn.

STARTING A NEW LAWN

Spade or plow the area to a 6 or 8 inch depth. Pulverize the soil thoroughly by mixing with sand and humus. Peat moss is invaluable for adding to both light and heavy soils because it helps retain soil moisture without allowing the water to be dissipated down below the root lines. Spade peat into the soil or apply as a top dressing at least half an inch deep. In a heavy clay soil use at least an inch or more. A newly planted lawn needs a rich, well balanced soil, because grass roots are heavy feeders. Mix the lawn food with a top dressing, rake and work it well into the soil.

The generally accepted rule for the amount of seed required is five pounds per thousand square feet. Skimping on seed in quality or quantity is costly in time and labor. Choose a calm, windless day for sowing. A more uniform distribution of seed is possible with a spreader. Whether sown by hand or spreader however, sow in two directions, one at right angles to the other. This insures against leaving bare, grassless areas. Rake the seed into the soil lightly. The seed should be covered by an eighth of an inch of fine soil or new top dressing.

Use a light water ballast roller and empty to one third full. Remember the soil becomes completely compacted if rolled too heavily too often or when wet and sticky.

Use a fine spray, so the seed bed will not be disturbed. If the normal moisture is enough to keep the lawn just slightly damp, try not to water it again until the seed has germinated, but never allow it to dry out.

LAWNS ARE MADE WITH GOOD SEED

If you have some special problem with your lawn and haven't been able to correct it, call on us. We've been working with lawns right here in this area for years and know the right seed and right diagnosis for nearly any lawn problem you might have. Drop by and see us today.

FOR SUNNY SPOTS

Exposed areas in bright sun tend to "burn out." There is no one kind of seed that will take care of all situations the year round. But there is a best seed or blend for your sunny lawn and we know them. Let us help you plan and grow your lawn.

FOR SHADY LOTS

Ordinarily, establishing a good lawn in a shady area is a difficult situation. Absence of sufficient sunlight causes many types of lawn seed to quickly die out or even fail to germinate. Wherever this problem exists you need our Special Shade Mixture. These are excellent shade enduring grasses and clovers that have given good results on many shaded lawns here.

FOR SPECIAL NEEDS

Parks, playground, and golf courses need their own types of grass . . . all different. We have the right seed for all special uses. Just bring your problem to us . . . we'll furnish the seed you need and the know-how it takes to make it grow.

How Much Seed?

Skippy seeding is costly in the long run. Plant enough to get a thick, heavy mat of grass and you'll need far less reseeding. The wise minimum for new lawn planting may be figured from this table:

Size of plot	Square feet	Amount of seed
10x20	200	1 lb.
20x50	1,000	5 lbs.
20x200	2,000	10 lbs.
50x100	5,000	25 lbs.
100x100	10,000	50 lbs.

For re-seeding, use at least half the amount.

Chewings Fescue

A vigorous fine-bladed grass especially valuable for terraces and shady places. Very resistant to heat, drouth and hard wear.

Creeping Red Fescue

An extremely hardy type of fine-leaved fescue which spreads by underground root stems. Makes an extremely tight weed-resistant turf.

Colonial Bent (Highland)

Fine in texture and holds its color well in summer heat. Admirably suited for putting greens and for home lawns.

Delta Blue Grass

An improved strain of Kentucky Blue grass selected from northern Alberta in Canada. Has shown outstanding vigor and disease resistance.

Kentucky Blue Grass

Considered by many as our most valuable native grass, it forms a close, thick turf of rich dark green color. Being rather slow in germinating, it is usually used in combination with other grasses. This is especially true in making a new lawn.

Hulled Bermuda

Highest grade Bermuda. Removal of the hard, almost water-tight hull speeds germination. With proper moisture conditions, seed germinates in one to two weeks.

Our Finest Lawn Mixture

Our Selected lawn mixture is a combination of the finest quality seeds—which we have developed after years of experience. All the grasses in it are fine-bladed and deep-rooting. There just isn't any better combination than this for our lawns.

Merion Blue Grass

A strain of Kentucky Blue which has demonstrated throughout the country its ability to stay green all summer, require less mowing and resist many turf diseases. Has amazingly heavy root growth.

Pennlawn Creeping Fescue

A new selection of Creeping Fescue from the Pennsylvania Agricultural Station considered to be the finest to date. Thrives in all types of soils, in sun and shade.

Poa Trivalis

This is a true shade grass similar in growth and appearance to the well known Kentucky Blue Grass. Not recommended in thin, poor soils.

Red Top Grass

Quick growing. Thrives in a wide range of soil conditions. In the lawn, it is used mostly as a nurse grass in combination with other lawn grasses.

White Dutch Clover

Easily grown on most any soil which is not too acid. Its low, compact growth makes it valuable for crowding out weeds. It is best sown in the spring.

Other Grasses

In addition to the lawn grasses listed here, we can supply just about any other variety you need. We carry a complete line of all grass varieties that can be grown successfully in this part of the country.

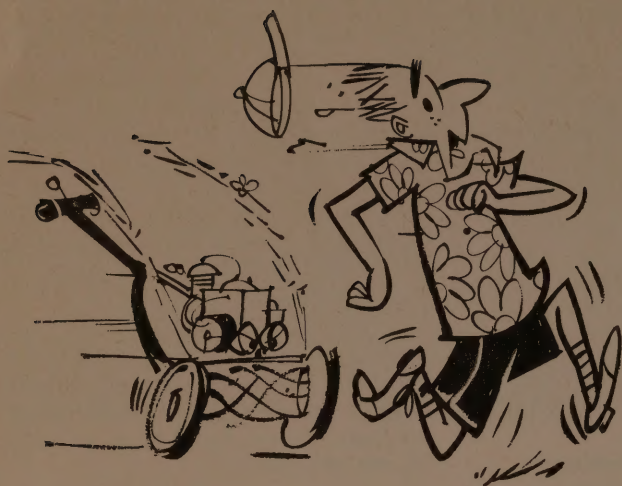
Our Special Shade Mixture

Our Shade lawn mixture is a scientifically developed blend of top quality shade enduring grasses and clovers. We believe it will produce results anywhere that grass can be made to grow.

GEO. KELLER & SONS CO.

909 Maine St.

Quincy, Ill.



How to be Friends With Your Lawnmower

One cardinal rule for operating any gasoline mower is: never use high octane fuel. Although it may seem to make your mower run better for a time, the high test gasoline will soon burn out the valves. Regular gas is best, whether leaded or non-leaded.

Most newer gasoline mowers have four-cycle engines with an oil pan on the underside. Don't add oil to the gasoline, as this will gum up the spark plug and internal workings of a four-cycle engine.

The spark plug is a very important part of your gasoline mower. For best performance, buy a new plug each spring. To be sure of getting the right kind, take your old plug along. Then, about twice each summer, have the plug cleaned and re-gapped at a service station. The tag on your mower will tell you the proper gap.

Drain the oil pan and refill with fresh oil at least twice each season. Also, the carburetor air filter requires periodic cleaning and a small amount of oil to help trap impurities.

A sharp blade will help any mower *cut* the grass rather than break it off with a resultant uneven appearance. Have the blade *sharpened and balanced* each year. Rotary blades are fairly simple to sharpen and balance, but reel-type blades (like the mower shown in the sketch) are considerably more difficult and are easily ruined by improper amateurish adjustment.

Use *fresh* gasoline in your mower. A can of gasoline stored all winter under your house probably will have picked up some water by condensation, and maybe some dirt and rust.

Run your mower at medium-low speeds. Excessive speed serves only to wear out the engine sooner. Experiment with the throttle until you discover the lowest possible speed before it stalls in

the grass, then increase the speed just a little. If cutting very tall grass, better to raise the cutting height rather than increase the motor speed.

Clean your mower after each cutting. In warm weather, wash grass clippings from the underside with a garden hose, then allow to dry. Clean top-side with a rag. Always wipe the outside of the plug to prevent spark jump.

If your mower is very balky or hard to start, it may need new ignition points or new piston rings or a carburetor adjustment. Take it to a repair shop, since special tools are needed.

For safety, cut a slope from side to side, rather than up and down where your foot might slip into the blade. When working on a mower, always disconnect the spark plug first, since hot motors have been known to start themselves, particularly if the blade is turned. Avoid running over stones, sticks or other debris which might fly up and hit you.

If your lawn is not large, consider the advantages of an electric mower. Although it is generally considered not as powerful as a gasoline mower, it runs quietly, makes no smoke or fumes, and requires very little maintenance. Its biggest drawback—cutting the cord—can be readily avoided with normal precaution.

For a very small lawn, a push mower may be best. They are not really as hard to push as you remember from your childhood, and they have been vastly improved mechanically. Other advantages of the push mower: it's quiet, clean, almost maintenance-free, easy to store and handle, and generally does an excellent job of cutting.

Make friends with your lawnmower by treating it kindly and servicing its needs. It's a good friend to have.

How to Plant Roses

ROSES have three essential requirements: food, water and proper planting. It is of utmost importance to meet these requirements. The food should be where the small feeding roots can reach it. Dampness keeps this food in solution, and roots take it up in this form.

The "sandwich" method of preparation is done by removing all soil down to two feet, saving only the top soil. Lay the old top soil at the bottom, followed by mixed layers of loam and rose food. Don't make the bed more than 5½ feet wide.

As the rose roots will go down 18 inches to 2 feet, the preparation should be at least this deep. Some meticulous rosarians go even deeper.

Proper planting includes the care of the bushes the moment they arrive. A cloudy, windless day is ideal for setting them out. They will come properly root and stem pruned, but if any of the roots have been injured, snip them off above the break. Be careful not to expose small roots to sun and wind.

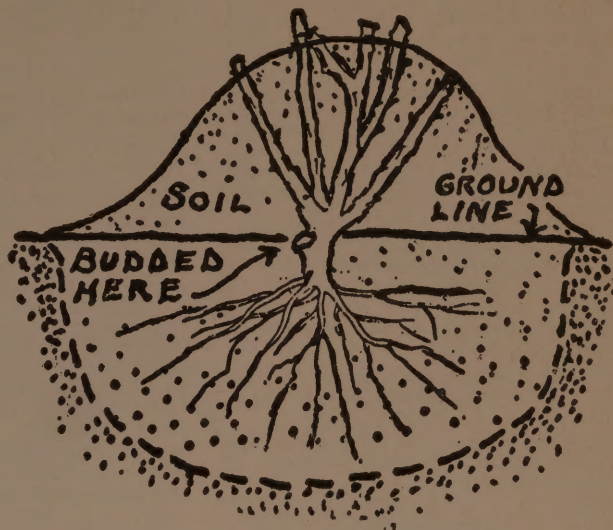
In planting, dig a hole wide enough and deep enough to accommodate the roots without crowding. Build a cone of soil in the middle of the hole and spread the roots out on each side of it. Pack them well into the earth, then water and pour in more dirt. Tamp down firmly with your feet to keep out air spaces.

Remember these important points for successful rose growing:

1. When a quantity of roses arrive and you can't plant them right away, lay them in a trench, being careful to cover the roots with soil.
2. Carry rose bushes for planting in a bucket of muddy water.
3. Since roses are grafted on an understock, set the graft point or head below the surface. Should suckers appear, cut them off.
4. Cultivate a deep top layer of soil. As the roses will go down from 18 inches to 2 feet, your preparation of soil should be at least that deep.

5. Bunched roots result from bad planting. Roots should be spread out on a cone of soil.

6. Winter protection, in cold regions, starts with hilling up the bush with soil—8 to 9 inches. Later, pile leaves around this, with boughs or chicken wire to keep the leaves in place. Before preparing this winter covering, cut back tall hybrid teas, and hybrid perpetuals. Lay climbers down and cover them with leaves or roofing paper.



The above illustration shows the proper way to plant and hill up a rose bush. Prune back all canes as shown. Dig hole somewhat larger than the spread and depth of roots. Fill in enriched soil around the spread-out roots, keeping the crown barely covered at the finished ground line after tramping. Water thoroughly and hill up 6 to 8 inches of moist soil over top of plant as shown. **THIS IS MOST IMPORTANT.** After growth is well started, wash down this soil mound and remove to proper bed level.

The head point or knob where the rose grows from the understock should be one inch below the surface. Newly planted roses should be hilled up with soil for two weeks until roots get established.

How to Divide Perennials

The lifting and dividing of overgrown plants are jobs that are usually done in the autumn when the perennials are nearing their dormancy, but can be done in the spring successfully.

Summer Phlox—After five years, clumps of *Phlox paniculata* bear poorer flowers. Lift the whole clump, pull off side pieces, shorten and reset in fresh soil. Discard the middle part of the clump. The safe distance apart to reset pieces of vigorous perennials is three feet. Excavate the worn-out soil, replace with compost and a slow-acting fertilizer, such as bone meal.

Columbines—Although these are apparently fragile plants, well-developed columbines have sturdy

roots which can be cut with a knife then torn apart by hand. These columbine divisions can be put directly back into the fresh soil, well-watered and, if the day is sunny, shaded for a time. The excess divisions go into a cold frame to winter over.

Daisies and Other Perennials—Most of the daisy types, *Shasta*, *Michaelmas*, are lusty growers but will not continue to flower abundantly unless divided every year. The soil should be enriched and deeply dug for the divisions. Other perennials that often need division are fall asters, herbaceous clematis, rudbeckia, helianthus, yarrow, coreopsis, globe thistles and evening primrose. The sprawling perennials, aubretia, alyssum saxatile and such, benefit by occasional division and soil renewal.

Roses

Patented Hybrid Teas

RED

TROPICANA — A brilliant orange-red which has captured the imagination of everyone who has seen it growing. Height varies from 3 feet to 6 feet, depending on climate. Has a constant flow of flowers on the regular wood, and beautiful bottom breaks. Rich green foliage. Flowers are $4\frac{1}{2}$ to 5 inches in diameter, will last 5-6 days when cut. AARS 1963.

CHRISTIAN DIOR—Crimson-red overlaid with scarlet. Remains beautifully steadfast throughout its life. Does not "blue" as it ages. It has exceptionally fine cutting qualities with long stems, and a light tea fragrance. 1962 AARS.

CHRYSLER IMPERIAL—Unmatched by any other red rose. Rich, vivid tones of crimson enhanced by darker overtones of glowing oxblood red.

MIRANDY—Long, ovoid buds of rich maroon-red. Penetrating Damask fragrance.

NEW YORKER—Immense blooms of resplendent scarlet with dark overtones of a rich velvety hue.

FLORIBUNDA

FASHION—Rich coral-peach up to 3 inches with 25 petals.

GOLDEN SLIPPERS—Color is completely different and distinctive. The opening bud is perfectly formed of burnished gold boldly splashed with red. Opened fully, the upper surface of the petal is a fiery orange-vermilion; the under surface golden yellow. The plant is neat and compact and constantly covered with large clusters of bloom. 1962 AARS.

IVORY FASHION—A sparkling Floribunda set off by a suggestion of yellow in the bud stage and the petals hold very well.

RED PINOCCHIO—New glorious red with lasting fragrance.

SPARTAN—Burnt orange buds soften to orange-red shaded coral.

VOGUE—Soft coral-red. Flowers are big and beautifully formed. Delightful fragrance.

GRANDIFLORA

GOLDEN GIRL—Bright, clear solid yellow. Good size and form. Fragrant and free blooming.

JOHN S. ARMSTRONG—Glowing, dark red in color unequalled in this class for its richness and "aliveness." Long lasting and retains its striking deep red color from opening bud until the last petal drops. 1962 AARS.

MONTEZUMA—Brilliant, rosy salmon. Tall plant with blooms on long, strong stems.

QUEEN ELIZABETH—Delicate pure pink, with subtle blending of soft carmine-rose and dawn pink. Tantalizingly fragrant.

WHITE

GARDEN PARTY—Spectacular with a rich ivory center, turning to apple blossom pink at the outer edge.

WHITE KNIGHT — Magnificent, pure white, satiny rose with blooms 5 inches across.

PINK

ROYAL HIGHNESS—The perfect exam-

ple of what a show rose should be. Long, beautifully shaped buds open into the loveliest of flowers. High centers and gracefully turned petals . . . the proportions of the classic rose. Parentage is Virgo x Peace. 1963 AARS.

KORDES PERFECTION—Pink or rose-red and cream in a delightful blending or colors. Good cutting flower and very vigorous. Has a delicate and intriguing scent.

PINK PEACE—Big and beautiful. A dusty pink with hairline edging of lighter color. A rich tone remaining throughout bloom. Strong fragrance.

SHOW GIRL—Bright, luminous, deep pink buds with exhibition-type open blooms on straight stems. Perfect for cutting.

YELLOW

GOLDEN SCEPTER—Tall with dozens of slender, golden yellow buds which reach $5\frac{1}{2}$ inches. Equisite yellow retaining color all summer.

KING'S RANSOM — An exceptionally large yellow. The above average size buds are long and slender, of the purest chrome yellow. Blooms open gradually and develop into high centered flowers with the center neatly covered and full and drop off cleanly when the bloom is spent. 1962 AARS.

PEACE—Ovoid buds of golden yellow, etched pink, changing to canary yellow, then cream as the pink gradually suffuses the bloom.

SUTTER'S GOLD—Gold touched with flushes of copper, pink or vermillion. Blooms abundantly, making lovely flowers perfect for cutting.

KING'S RANSOM—1962 AARS. An exceptionally large yellow. The above average size buds are long and slender of the purest chrome yellow.

JOHN S. ARMSTRONG—1962 AARS. Glowing dark red, long lasting and retains its striking deep red color from opening bud.



Standard No. 1 Varieties

RED

CHARLOTTE ARMSTRONG — Lovely pointed buds of spectrum red open to beautiful rose-red blooms. Each petal is edged with a silver line.

CRIMSON GLORY—Beautifully formed blooms of deep vivid crimson. Fascinating fragrance.

PINK

PICTURE—A favorite pink in gardens because of its beautifully formed buds and blooms of luminous pink.

CLIMBERS

BLAZE—Popular spring blooming plant covered with thousands of blazing red flowers. Big, husky and hardy.

DR. J. H. NICHOLAS—Radiant pink flowers from late spring to hard frost. Very fragrant. Fine cutting stems.

PAUL'S SCARLET—Brilliant scarlet flowers of rapid growth and extreme hardiness. Blooms are large and last over a long period.

WHITE

K. A. VIKTORIA—Old fashioned white rose. Cream white with faint lemon center in the open flower.

CLIMBERS

BLOSSOMTIME—Provides a profusion of exhibition quality blooms of delicate pink. Fragrant.

CRIMSON GLORY—Luxuriant, vigorous, fast-growing climber with high-pointed blooms of deep vivid crimson.



GARDEN PARTY
AARS 1960

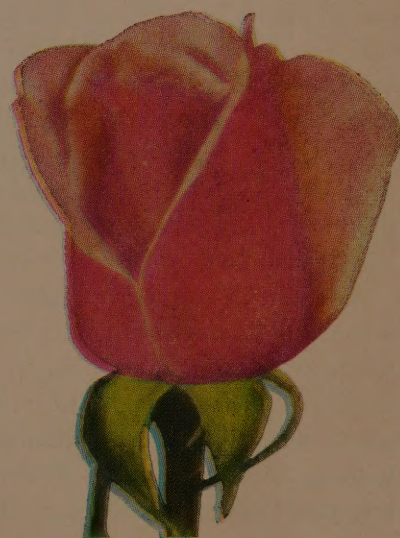


FIRE KING
AARS 1960

PINK PARFAIT
Grandiflora
AARS 1961



DUET
Hybrid Tea
AARS 1961



KELLER'S

A Good Name to Remember **MORE THAN JUST A STORE**

Keller's is more than an ordinary store. Year after year we work hand in hand with the growers of this area—the home gardener, the market gardener and the farmer. All that we have learned from this experience is always available to our customers. So, you see, we don't just sell seed and related merchandise. We furnish local know-how that comes from all this combined experience.

So, whether it's a question of seeds, or insect control, or soil feeding, or equipment—or any of the many divisions of this business—you can always find dependable merchandise here.

KELLER'S PURE LAWN SEEDS: High germinating and best quality, chosen especially for use in our area. **Shady Lawn** best for shady spots. **Best Mixture** for the permanent lawn.

PET SUPPLIES: A complete line of everything you'll need for your pets. **Dog foods, Remedies, Sweaters, Beds, Supplies, and Toys.**

VIGORO for beautiful lawns and gardens, and **ENDO-WEED** to get rid of weeds.

SUPPLIES: Garden tools, wheelbarrows. **Eazy Wear** garden gloves. Everything you need for the farm or garden.

GEO. KELLER AND SONS CO.
909 Maine Street
QUINCY, ILLINOIS

THE STORE WHERE GARDENS BEGIN

TROPICANA, hybrid tea, 1963 AARS



ROYAL HIGHNESS, hybrid tea, 1963 AARS.

